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ABSTRACT

The project consisted of several independent sub-experiments focusing on factors that affect moral reasoning among young children. Preschool children, following brief training programs, reasoned more maturely about intentionality, punishment, sanctions following behavior, relativity, and immanent justice. Two methods of training were compared. In some cases children were more advanced or behaved differently than described by Piaget. Correlations between some of these measures including measures of parental attitudes were also computed. The findings were discussed in terms of the cognitive-developmental theories and a comprehension preference model proposed by the investigators. Recommendations for further research and programs to facilitate growth of children's moral reasoning were proposed. (Author)

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EFFECTS OF TRAINING ON THE ETHICAL REASONING OF CHILDREN

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Provo, Utah

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INTRODUCTION

At all grade levels and across almost all subject areas, children receive information and problems that require moral reasoning. One example of the judgments required at an early age level is in the area of classroom discipline. Rules are usually presented the child by either the educational institution or the teacher, and the rules may be very explicit or extremely informal. Can children understand the rules and the logic upon which the rules are based? For example, can children realize that punishment has restitutive as well as retalitory functions, that the motives for committing a transgression must be considered in addition to the amount of damage done, that all acts which are followed by negative consequences are not to be labeled as bad just because of the negative consequences, and that some rules can be developed or changed by mutual consent as well as by a decree from authority?

The practical importance of understanding how a child handles concepts of morality such as these may be illustrated by the following: When children are very young, a teacher may be successful in asking children to follow a rule simply because a rule is a rule. When the children are older the teacher would likely have to enumerate consequences, and at a later age explain that if everybody talked without raising his hand nobody could have his questions heard. Still later, a teacher might point out the rules in general should be respected because of the functions rules serve for the whole society and that the rather minor class rule is an extension of the basic concept of social law. Kohlberg (1964) maintains that a child operates at one level of moral reasoning and explanations for rules offered at too advanced levels cannot be understood. He also implies that requests based on reasoning at too low a level are likely to be rejected by the child.

Kohlberg reports an orderly development of maturity in dealing with moral judgments which is purported to develop in a similar pattern in all cultures. He states, "In summary, the nature of the sequence is not significantly affected by widely varying social, cultural, or religious conditions. The only thing that is affected is the rate at which individuals progress through this sequence."

This project is primarily concerned with the rate at which the moral reasoning develpos. Specifically, we need to know if specific training programs or education can increase the rate of growth. It is assumed that society desires more mature moral reasoning but is it possible and practical to facilitate this gorwth through instruction? Kohlberg (1968) believes that the development is determined by general social experience and cognitive biological development and is relatively unaffected by direct training. On the other hand, some recent studies (Bandura, 1963; Crowley, 1968; Turiel, 1966) indicate that rapid and large gains in moral reasoning are possible following brief programs of instruction.

Page numbers 13, 29, 37, and 152 have been omitted but text is complete.

BACKGROUND

Early psychologists were interested in moral thought and behavior but the interst was weak during most of this century. It was not until the nineteen fifties that interest returned to research on morality. Research investigations and theories about moral development have stressed three developmental aspects: The behavioral, affective, and cognitive. A behavioral criterion of internalization is that of conformity to some standard which is intrinsically motivated. The behavioral conception of moral character formed the basis of earlier American research on morality. The studies of Hartshorne and May (1928-1930) followed this tradition in defining moral character as a set of culturally defined values, such as honesty. For example, in one study they measured the child's ability to resist temptation to break a rule when it seemed unlikely that he would be detected.

The second criterion in determining the existence of an internalized standard is the emotion of guilt. This is emphasized by the affective component of morality advanced by Freud (1936). It was believed that the child's conscience became an autonomous, internalized representation of adult behavior as he slowly identified with the moral structure and value systems of his parents. After a child had internalized standards, transgressions resulted in a self-punitive, self-critical reaction of remorse and anxiety. Thus, the child behaved in order to avoid this anxiety or guilt.

The cognitive aspect deals primarily with making moral judgments in terms of a standard and justifying maintenance of that standard to oneself and to others. Recent work and theory, having been inspired by the Swiss psychologist Jean Piaget (1932), has focused on the judgmental side of moral development. The present proposal is concerned with this third, cognitive, approach to the study of moral development.

The cognitive theorists have studied moral judgment by means of an age-developmental analysis which has involved investigations of basic thought structures characteristic of an age group (e.g. Kohlberg, 1963 a; Piaget, 1932; Strauss, 1954, and Urugel, 1952). This has been studied primarily by observing how the child used and interpretated rules in conflict situations and his reasons for moral action. Piaget emphasized two moralities in the moral development of the child. The first morality was called heteronomy or "sugject to another's law." This occurred in early childhood between the ages of three and eight and was formed in context with the inferior position that the child held in comparison with the adult. He believed that the cognitive limitations of a child in this group led him to confuse moral rules with physical laws and to view rules as fixed, rather than relative instruments of human interaction. Because the child had a "unilateral respect" for adults, he learned to adapt to the prohibitions and sanctions handed down from adult superiors by making these rules absolute and sacred. This rigidity in the child's thinking was influenced, in large part, because of his "realism" or inability to distinguish between subjective and objective aspects of his experiences and because of his "egocentricism" or inability to distinguish his own perspective on events from that of others.

The second morality, developing after the age of eight, was called autonomy, or "subject to one's own law." Autonomy developed out of interaction and mutual respect among status peers. The progression from heteronomy to autonomy resulted from the child's continuing effort to comprehend his total moral experience. Piaget proposed that moral experiences and adult precepts were assimilated and transformed by the child's slowly maturing cognitive system.

Extending Piaget's theory, Kohlberg (1964) listed six developmental dimensions of moral judgment. First, as mentioned above, younger children usually make absolute moral judgments without realizing that there may be other points of view in most situations (MacRae, 1954). Second, younger children tend to label an act as bad if it were punished, even if the punishment was not deserved (Kohlberg, 1963b). Third, younger children tend to use the idea that a direct return of good or evil should be given (Kohlberg, 1958). Fourth, younger children view punishment as having a punitive function, neglecting the restitutive function, and they generally favor severe punsihments for wrongdoing (Harrower, 1934; Johnson, 1962). Fifth, younger children believe in "immanent justice" or that God's will or fate produces a misfortune for the transgressor (Caruso, 1943; MacRae, 1954; Medinnus, 1959). And sixth, younger children tend to base their judgment about the "naughtiness" of an act primarily on the basis of damage without regard to intention. The wrongfulness of an act, then, was viewed in terms of overt consequences of the act rather than the subjective intention of the person performing the act.

These dimensions of heteronomy change as the child grows older but there is controversy about the causes and nature of cognitive developmental explanation which is usually called a stage theory.

Before further discussion of cognitive stage theory it is necessary to understand more accurately what a stage theory is and what assumptions it makes. Piaget, who is perhaps the most widely recognized stage theorist, sets forth an encompassing definition, Piaget (1970, p. 11-12). His stage conception centers around the concept of equilibrium, to which he relates the two common stage conceptions; 1. that the dominant characteristic defines the stage although other characteristics are present, and 2. that each stage is defined by a restructuring of the previous stage into a new total thought structure which incorporates the previous stages as substructures. He says a stage is a point of equilibrium reached after a period of change and confusion. It is an integration resulting from a previous point of equilibrium and resulting in a new total thought structure with a dominant characteristic. Piaget also sets forth five criteria for a stage theory (Piaget, 1970, p. 13-14). They are:

(1) a constant order of succession;

(2) an integration from a lower stage to a higher one, that is, processes used in a preceeding stage form an underlying basis for the next stage;

(3) elements of one stage are integrated into the achievements of the next stage and are distinguishable from the aspects of preparation for the succeeding stage;

(4) the preparations leading to a stage and the achievements of a stage form a general structure;

(5) stages are a series of equilibrium levels becoming more complex and depending for stability of each on the amount of integration and structuring which has occured.

These concepts are quite nebulous and are empirically hard to define, but they do give a conceptualization of a stage. Kohlberg defined his stages and assumptions more concretely. Kohlberg's frame of reference is a cognitive-developmental one. To give a clear understanding of what this approach assumes the eight basic assumptions as enumerated by Kohlberg (1969, p. 348-9) are listed below.

1. Development is due to a cognitive structrual transformation, not the traditional parameters of associationistic learning.

2. These structures are structures of action upon objects, a structured action or handling of inputs to obtain the output.

3. The structures are products of the interaction between the organism's structure and that of the environment and are direct reflections of neither.

4. The direction of development is toward greater equilibrium in the organism environment interaction giving an underlying stability to cognitive functioning under varying conditions.

5. Affective and cognitive development aren't two separate entities, but parallel manifestations of the same basic structure.

6. There is a basic unit of personality organization, ego or self, with various aspects of social development, one of which is moral development, and all relate to and help make up the self. Development in a social sense is then a restructuring of self-concept, concept of relationship to others, and concept of a common social world.

7. The processes underlying physical cognitions and their changes are basic to social development. Social development, however, always involves role taking.

8. The direction of social or ego development is toward equilibrium or reciprocity between the self's actions and those of others toward the self.

These eight assumptions give a clear conception of the type of view a cognitive developmental psychologist takes in attempting to explain human behavior. These assumptions lead one to a invariant view of human development, as illustrated by his stage theory criteria, Kohlberg (1969, p. 352-3). First, there exist qualitative differences in children's modes of thinking or problem solving at different ages. Second, these

modes form an invariant sequence independent of culture although culture affects the rate of change. Third, each mode is a structured whole with underlying thought organization. And fourth, the stages are heirarchial integrations forming an order of increasingly integrated and differenciated structures fulfilling a common function. It is also necessary to understand how Kohlberg's theory views interstage developemnt, Kohlberg (1964, p. 395). The changes are initated by social interactions. This, however, is to be differenciated from internalization of familial and societal values since it's basis is participation and role taking. (Kohlberg, 1964, p. 404). Age trends are due to attempts to make sense out of the world rather than increased verbal ability. New learning depends on the match between the present stage and the material presented.

According to this stage (cognitive developmental) theory the acquisition of more mature modes of moral judgment would be acquired only as the changed underlying cognitive development matured. Children should not be able to understand the more advanced conception of the dimensions of moral judgments while in the heteronomy stage of reasoning.

In the next chapter, are several experiments which demonstrate that it is possible to train children to make more mature judgments about these dimensions of moral reasoning. Also listed are some experiments that focus on clarifying the nature of reasoning associated with the dimension, including one experiment that found that preschool children already grasped the primary elements of mature reasoning associated with the dimension. Those experiments are completely reported each defining the dimension investigated, method, and discussion. Following presentation of the experiments the final chapter will discuss the experiments in terms of the cognitive developmental theories and a theory advanced by the principal investigator to explain the findings. A discussion of the educational implications will also follow.

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THE EFFECT OF TRAINING CHILDREN TO CONSIDER INTENTIONS WHEN MAKING MORAL JUDGMENTS[1]

Piaget (1932) proposes that moral judgment develops from an immature heteronomy (subject to another's law) to autonomy (subject to one's own law). The stage of heteronomy requires the child to make judgments based on his "unilateral respect" for adults because he confuses their rules with the absolute laws of nature. The rigidity in the child's thinking is said to be influenced by his inability to distinguish between his own perspective on events and that of others'. This inability then causes the child to make his judgments on the basis of the amount of damage done, or the overt consequences of the act. However, when a child reaches the autonomous stage of development, he would more strongly consider the intentions behind the act, rather than focus on the consequences of amount of damage. This development from heteronomy was thought to begin around age three and continue until approximately age nine.

According to Piaget, the transition from immature to mature moral judgments develops slowly and results from increased social interaction. Technically, this is referred to as the process of equilibration of the schema resulting from the contradictions of rules within the child's cognitive world. Is it possible to produce the same effect in a short period of time by intensive training? In other words, can children acquire more mature moral judgments after being exposed to a short period of training at age four or five instead of undergoing the gradual changes described by Piaget?

To date, few experiments have appeared in the literature dealing with the training of mature moral judgments. One of these, Turiel (1966), found that children who were exposed to different levels of moral reasoning were able to show the results of training by responding with judgments considered one but rarely two stages above their previously measured stage of development. Another study conducted by Crowley (1968) demonstrated that trained six-year-old children were able to make more mature judgments than control groups who received no training. Moral maturity was defined as the realization or consideration of the underlying intention. On the other hand, objectivity was defined as focusing on the consequences of the act to the exclusion of the intentions of the actor. Two training methods were employed: merely labelling the correct answer, and providing a discussion along with the labelling. The posttest showed both training groups made significantly more mature moral judgments than the children in the control group who received no training. The discussion program provided no advantage over mere labelling.

[1]Credit is extended to Gregory E. Hafen for his assistance at all phases in this experiment.

This experiment has been accepted for publication in the Journal of Genetic Psychology.

Two possible explanations have been postulated to account for the lack of difference between Crowley's two experimental groups. One is that Crowley's six-year-olds were in the process of change from objective to subjective judgments, and therefore, the labelling exercise was sufficient to trigger the movement to subjective thinking, thereby nullifying the hypothesized superiority of the discussion method over the labelling effects. A second explanation, suggested by Crowley, states the experimenters' questions focused on detail rather than the abstraction involved.

Glassco, et al. (1970) retested Crowley's subjects six months later. They introduced two variations: (a) novel moral stories and (b) a different presentation sequence of the stories. They concluded that training did affect the cognitive structures controlling subjective evaluations of intention. Jensen and Larm (1969) replicated the Crowley study with the following modifications. They used five- instead of six-year-old children. In their experiment children had picture books that illustrated the stories and the children were asked to respond to each picture. Naughtiness had to imply intention. Like Crowley, they found that both the discussion and discrimination training groups were superior to the control groups. They also found that the discussion group performed better than the discrimination group. The difference was only at the $p < .10$ level of significance for one measure, and at the $p < .05$ on another measure that required the child to verbally explain his answer.

The success of Jensen and Larm in training five-year-old children suggests that it may even be possible to train younger children. In addition, by carefully replicating the Jensen-Larm procedure, it would then be possible to compare the relative effects of the training on the two age groups. Accordingly, the present experiment was modeled after the Jensen and Larm experiment. An additional posttest was administered two months after training to help establish the stability of the change.

METHOD

Subjects The subjects were 36 children ranging from 48 to 54 months in age. They were all attending the preschool laboratory at Brigham Young University. All children were white and middle class.

Materials Booklets consisting of alternating pages of yellow, blue and pink were prepared for each experimental subject. These booklets illustrated each pair of stories presented during the training session. Also presented were large illustrations of these same stories on colored poster paper measuring 11 inches by 14 inches.

All the stories presented to the experimental groups were the same as Crowley and Larm used, except for Crowley's item eight, which he found to be a poor discriminator. The verbal discrimination group was presented 45 pairs of stories during the training sessions. Of these pairs of stories, 25 were selected at random and presented to the discussion group.

Procedure The experimental design had three phases: (a) a pretesting session in which subjects were selected who consistently made immature moral judgments, (b) a series of five group training sessions in which each group received training appropriate to its respective condition, and (c) a posttesting session where subjects were individually tested on stories similar to those presented during the pretest, but with which they had had no experience. Each step of the procedure will now be discussed in more detail.

a. Pretesting session. The experimenter saw the children in individual testing sessions, along with his assistant, during the five-day series. In the pretest portion of the experiment, the experimenter explained individually that he would be reading some stories about children who were naughty and that he wanted them to tell him which one they thought was the naughtier. He asked each subject if he knew what it meant to be naughty. If the subject's responses were not sufficient, the experimenter gave him examples of naughty children and further asked the subjects to give examples of naughty acts. To facilitate the subjects' understanding, the stories were illustrated on the yellow, blue, or pink posters mentioned above for the training session.

After reading a pair of stories once, the experimenter reminded each subject to decide which one they thought was naughtier. The stories were then read a second time to each subject. After the second reading, the experimenter asked the child to point to the person who did the "naughtier thing." Each response was recorded with a (+) or (-) depending on whether the child made a subjective or objective response, respectively. The experimenter did not comment on whether the child made a correct or incorrect choice. The subjects were also asked why one person was naughtier and these responses were also recorded.

During this session, the experimenter administered seven pairs of the Piaget-type stories in a counterbalanced order of intentional and accidental acts. Only children making two or less subjective judgments were selected to participate in the experiment. In other words, subjects selected were those making five or more immature judgments, ignoring the intentions of the actor. This was the procedure until 36 objective oriented children were obtained. The 36 subjects were then randomly assigned to one of the three treatment groups. All of the 36 subjects finished the study.

b. Training session. This session followed ten days after the pretest period. Subjects were assigned to one of two experimental groups or a control group. Each group was then divided into subgroups of four children each. The groups met with the experimenter and his assistant for training sessions on five school days, but with a three-day weekend in the middle of the training session. Each session was approximately 18 or 23 minutes in length.

The general procedure for the two experimental conditions was as follows: At the beginning of the first session, the training was explained as a game in which the "winner" would receive a storybook. Winning depended on acquiring the most poker chips over the five sessions.

Each child was given a booklet with each page containing two stick figure illustrations of the stories in question. He was also given a crayon with which to mark his answers on the booklet. The colored illustrations in the booklets were matched with larger illustrations of the stories mounted on an easel before the children.

The verbal discrimination group was presented nine pairs of stories each day, making a total of 45 pairs of stories presented during training. For each item, the experimenter read the pair of stories carefully, pointing to the illustration on the easel. After hearing the stories twice to insure comprehension, the subjects were asked, "Who was naughtier?" They indicated their choice by marking the appropriate stick figure illustration in their booklet. After subjects had made their choices, the experimenter identified the "naughtier" person without any explanation and rewarded the subjects with a colored poker chip if they made a correct choice. This procedure was repeated for the nine items. The experimenter then collected the booklets after marking on the front of the booklet the number of poker chips won. He then dismissed the children until the next session.

A similar procedure was followed for the discussion group. This group was also presented the same stories as had the first group but since the experimenter wanted to equate the time spent in training, only five of the nine stories were presented each day. These stories were chosen randomly from the nine. This group received a total of 25 stories during the training. After hearing a pair of stories twice, a discussion was elicited from the experimenter who attempted to focus on the intentions of the person. The children were asked questions from a list prepared beforehand on each pair of stories. The following are typical of those questions asked:

"Which little boy was helping his mother but bumped into a box of candy that fell to the floor?"

"Was this an accident?"

"Which little boy spilled the box of candy because his mother said he couldn't have any?"

"Did he do this on purpose?"

The experimenter nodded or replied "yes" if the question was answered correctly. If not, another child was asked the same question until someone responded with the correct answer.

After the last question, subjects were asked to indicate the "naughtier" person by putting a mark in the booklet illustration. They were rewarded with a poker chip if the item was answered correctly. This procedure was repeated for the five items. At the end of the fifth training session, the experimenter counted up the score of subjective responses for each child. The child in each subgroup with the highest score was given a storybook. The rest of the children who had participated, including those who were eliminated in the pretest, were given lesser prizes.

During this training period, subjects in the control group were read one story daily. These stories were selected at random from the nursery library and did not necessarily contain a moral emphasis. They were also told that the "best" boy or girl, meaning one who could listen quietly to these stories, would receive a storybook. At the end of the training sessions, one child was selected arbitrarily from each subgroup and given a storybook. The other children were given lesser prizes.

c. Posttesting session. Ten days after the last day of training, the experimenter began to see each of the children from the three groups in an individual session to evaluate the effects of training. In order to maintain the comparable lapse of time between training and posttesting, one child from each group was seen in a sequence. The average time lapse between the end of training and posttesting was approximately 12 days. The posttesting sessions covered five days.

Each child was presented 12 pairs of the stories following the procedure described under "pretesting." Again each response was recorded (+) or (-) depending on whether the child made a subjective or objective response. The experimenter then asked why one agent was "naughtier" than another. Each child was required to give an explanation for his choice and these responses were also recorded. It was necessary to evaluate subject's reasons for choosing a particular story (e.g., their explanations for their choices). The experimenter and his assistant judged each response regardless of what story was chosen and gave each child a score for one of the following response categories: subjective, objective and repeated action. A subjective response was one which implied intention or action done on purpose. An objective response was one which focused on consequences of an action. A repeated action response was a natural response where the child merely repeated what had happened without intimating intention or consequences. The number of responses in each of the three categories were added and each child was given three separate scores.

The two ratings were done independently by the experimenter and two assistants. A product-moment correlation was conducted to correlate the separate ratings in each of the three categories. The correlation was .89 for one assistant and .91 for the other.

The hypotheses were tested by performing the appropriate planned comparisons of means. The fixed effects analysis of variance model was used to compute error sums of squares (Hays, 1963).

RESULTS

The primary concern of this experiment study was whether training would have any effect upon the maturity of moral judgments of the four-year-old children. This was measured by the number of subjective judgments on the posttest of the control group in comparison to the two experimental groups. This hypothesis was confirmed ($F = 42.69$, $df = 1/32$, $p < .001$). The means for the discussion and verbal discrimination groups were 6.25 and 6.00 while the control group mean was 2.08.

The small difference (.25) between the discussion and verbal discrimination was not significant. Additional planned comparisons were carried out on subjects' explanations. Table 1 gives the means and standard deviations of the posttest evaluations in each of the three categories. The response measures were subjective (intentionality oriented), objective (consequence oriented), and repeated action (action of the story repeated without emphasis on intention or consequences). The control group made just as many responses as the two experimental groups.

TABLE 1

Mean and Standard Deviations for

Posttest Explanation

GROUP	Subjective		Objective		Repeated Action	
	Mean	SD	Mean	SD	Mean	SD
Verbal Discrimination	4.25	2.35	3.31	3.08	3.83	2.99
Discussion	4.25	5.04	3.50	6.25	4.08	5.11
Control	.00	.00	6.08	7.91	3.75	3.85

It was also predicted that the discussion group would make more subjective explanations for their choices than the discrimination group. However, the analysis of the subjects' explanations showed that there was no difference in mean scores for subjective explanations between the two treatment groups. Both groups had means of 4.25. Nevertheless, the combined discussion group and the discrimination group recorded significantly greater subjective explanations than the control group which made no explanation ($\bar{X} = 0.0$) mentioning intentionality.

The combined experimental groups gave significantly more subjective explanations than the control group. ($F = 6.07$, $df = 1/32$, $p < .025$). The combined experimental groups gave significantly less objective judgments than the control group. ($F = 7.242$, $df = 1/32$, $p < .025$).

Two additional analyses were made. The first was a comparison between the four-year-old children in this study and the five-year-old children in the Jensen-Larm experiment. The results of this comparison are reported in Table 2.

TABLE 2

t Tests Done on Mean Scores on Post-test Stories of Subjective Choices and Explanations for Four- and Five-Year-Olds

Group	4-year-olds	5-year-olds	t	p
Discussion				
Choices	$\bar{X}$=6.25 n=12	$\bar{X}$=9.91 n=12	3.60	<.01
Explanations	$\bar{X}$=4.25 n=12	$\bar{X}$=7.69 n=12	1.25	>.05
Discrimination				
Choices	$\bar{X}$=6.00 n=12	$\bar{X}$=7.75 n=11	1.25	<.05
Explanations	$\bar{X}$=4.25 n=12	$\bar{X}$=5.00 n=11	1.00	>.05
Control				
Choices	$\bar{X}$=2.08 n=12	$\bar{X}$=1.18 n=12	1.01	<.05
Explanations	$\bar{X}$=1.00 n=12	$\bar{X}$=1.36 n=12	0.33	<.05

There was more improvement for the five-year-old children than for the four-year-olds in both the discussion and discrimination groups for the choice scores. There was no difference between the age groups for the control groups.

The second analysis was a delayed posttest conducted two months after the first posttest on twenty children of the original thirty-six who could be located. The comparison on the delayed test between the combined experimental groups and the controls was significant ($F = 1.55$, $df = 1/20$, $p < .025$). The difference between the two treatment groups was not significant ($F = 1.10$, $df = 1/20$, $p < .05$). The delayed posttest means for the choices of the three groups were 5.67 for the discussion group, 4.37 for the discrimination group and 1.71 for the control group. These results indicate that training procedures have a relatively permanent effect on intentionality learning since the subjects were able to retain the concept over two months duration. Again the discussion techniques did not facilitate learning of intentionality over discrimination techniques. A set of t tests conducted on the means of boys' vs. girls' posttest scores showed no sex differences between any group on any measure.

DISCUSSION

Effect of training

The general purpose of this experiment was to study whether a training program could foster the maturation of moral judgments in pre-kindergarten children. The operational definition of mature moral judgment was one proposed by Piaget (1932) and based on the principle of intentionality. Piaget stated that younger children judged the "naughtiness" of an act by its consequences. A mature judgment, he believes, is one based on the intentions of the agent to do harm. The task in the training sessions was designed to enable children to identify and explain the motive of intentionality when judging a moral act. It was found that children exposed either to verbal discrimination or discussion training sessions could then make more subjective choices based on intentionality as opposed to amount of damage or consequence done. A further analysis showed that the experimental groups gave more subjective explanations than the control group. Thus, training also resulted in subjects giving more mature explanations for their choices than the control subjects. This rapid change from an objective to a subjective choice and explanation is in contrast to the Piagetian belief that changes in moral judgment results from the gradual processes of assimilation and accommodation.

Although subjects in the training groups made significantly more subjective responses than subjects in the control group, it cannot be concluded that this is evident of change in the level of maturity from a "heteronomous" to an "autonomous" morality in other kinds of moral judgments. Because of the nature of the operational definition and procedure, the conclusions drawn are likely to be specific to this particular area of moral reasoning. Other studies have documented a

certain specificity of moral judgment. In a study of adults, Boehm and Nass (1967) did not find a consistent relationship between intentionality and independence of sanction, indicating that maturity in one aspect did not necessarily imply maturity in another. Durkin (1961), in a study of reciprocity in children's justice concepts concerning physical aggression and defamation of character, reported that children's judgment in one situation is not necessarily representative of what their judgment about the others would be. She concluded that this phenomenon of specificity placed limitations on the applicability of Piaget's theory concerning the development of justice concepts in children. The present study delineated the principle of intentionality as one phenomenon of moral judgment; however, further research is needed to establish its relationship to other areas of moral development as well as to other areas of intentionality. It is felt that the results of this study provide, however limited, some evidence against Piaget's emphasis on maturation as opposed to a learning analysis.

Effect of Differential Training

Another focus of this investigation has been to study the differential effects of the two training methods: discussion and verbal discrimination. Crowley (1968) did not find significant differences between these methods of presentation. Two reasons for his results are postulated. One is that his subjects were already in the process of change and that even a weak and superficial training period may have been adequate to provide an understanding of the principle of intentionality. It is also felt that his method of measurement may not have been adequate to distinguish learning by means of discussion or verbal discrimination since his subjects were not required to state or give reasons for their choices.

The suggestions put forth by Crowley were incorporated by Jensen and Larm (1970). They developed a discussion technique where the intentions of the agents in the stories were repeatedly contrasted. In addition, during the posttesting sessions of the Jensen and Larm experiment the children were required to give reasons for their choices. Their subject were a year younger than Crowley's, but they still had to discard more than half of them because their pretest scores indicated that they were beginning to make the shift to subjective thinking. They concluded that discussion techniques facilitate learning of the concept over discrimination, the difference in techniques approaching significance ($p < .10$) when only choices were analyzed. When comparing the effects of the two training techniques by measuring the subjective content of their explanations they found the discussion method produced significantly less objective explanations ($p < .05$).

This investigation was a replica of Jensen and Larm's experiment but used four-year-olds instead of five-year-olds. At this age level, it was found that only one-fifth of those pretested had to be discarded because the children were already making subjective responses. However, for this younger age group, it was found that training by discussion did not contribute to faster or more effective learning than did discrimination techniques. Even when subjective explanations were examined, there

was no difference in the techniques. A comparison of five-year-olds with the four-year-olds in Table 2 indicates that the older subjects did pick up the concept more readily in the discussion group. Perhaps the discussions were too abstract for the younger children but the reinforcement in both the discrimination and discussion group was sufficient to provide the observed change for both four- and five-year-olds. Both training procedures incorporated elements of reinforcement but the discussion procedure embellished it with questions and discussions. Nevertheless, both methods seem to be effective because the children in both the experimental groups did much better than the controls. It is concluded that even four-year-olds can be trained to make moral judgments which consider intentions and that the effects of training are enduring over at least a two-month interval.

THE RELATIONSHIP BETWEEN TYPE OF SANCTION, STORY CONTENT AND CHILDREN'S JUDGMENTS WHICH ARE INDEPENDENT OF SANCTION[1]

A specific dimenstion of moral judgments referred to by Kohlberg (1964) and Piaget (1932) is "independence of sanctions." In behavioral terms independence of sanctions means that one judges acts, or responds free from the influence of the rewards or punishments given to the acts or situations. According to Piaget, the child's ability to judge the rightness or wrongness of an act is dependent on the sanction given, i.e., the consequences following the act. The young child is thought to be in the heteronomous stage of moral development having unquestioning respect for adults, their rules and actions. If an adult punishes an act then the act is bad, and conversely, if an adult rewards an act, then the act is right. Kohlberg (1964) specifically states that the young child says an act is bad because it will elicit punishment; the older child says an act is bad because it violates a rule, harms others and so forth. Kohlberg cites an example. Young children were asked to judge a helpful obedient act (attentively watching a baby brother while mother is away) followed by punishment (the mother spanks the baby-sitting child). Kohlberg says that many four-year-olds simply say the obedient boy was bad because he got punished. In fact, older children may even invent acts to account for the punishment. Kohlberg does not suggest a misdeed, but from the investigators' pilot study, a response to the above story might be that the boy threw the baby on the floor and that's why he got spanked. Kohlberg goes on to say that by age seven a majority of children say that the boy was good, not bad, even though he got punished. According to Kohlberg, older children showed considerable conflict; some of the seven-year-olds defining right and wrong in terms of the rule and showing concern about the "injustice" of punishing good and rewarding evil. However, these older children still explained the rightness and wrongness of an act in relation to sanctions, but took a long-range or probabilistic view of this relation.

A survey of literature about this specific dimension of moral reasoning indicates that it is relatively unresearched. The only reference to an empirical study of independence of sanctions is reported in Kohlberg (1963). It is the present investigators' contention that it may well be that children understand the more mature aspect of independence of sanctions at a younger age than is presently thought possible. At the present time there is not an empirical demonstration that the moral judgments of young children are or are not independent of sanctions. However, it may be that other factors must be considered. Medinnus (1959) when reviewing the research literature on immanent justice concluded that factors within the stories influenced a child to make an immanent justice response. It is reasoned that the content of the moral dilemma about which a judgment is to be made may determine how independent the judgment will be from sanctions. If a child has been

[1]Credit is extended to Karen Hughston who participated at all phases in this experiment.

This experiment has been accepted for publication in the Journal of Genetic Psychology.

thoroughly taught that an act is good or bad then it is hypothesized that he will make his judgment independent of the sanctions. For neutral acts where he has not been specifically informed about the rightness or wrongness of the deed, the child should be forced to consider other related information, particularly the adult sanctions, in making his judgment. While both reward and punishment are sanctions, no research has demonstrated that both are effective. Although both should be effective, it is believed that the large amount of avoidance training in childhood may make the child more sensitive to the sanction of punishment.

In order to test the hypotheses that children's moral judgments are dependent upon sanctions; that independence of sanctions increases with age; that the dependence upon sanctions is determined by the content in the story problem and the type of sanction employed, the following experiment was designed.

METHOD

Subjects The Ss were 32 white middle-class children from the Brigham Young University Child Development Laboratory. The Ss in Group I were 4 1/2 to 5, and Ss in Group II were 4 to 4 1/2. The Ss were chosen from the total laboratory population on the basis of the availability for testing and age. Group II met in the morning and Group I met in the afternoon. In Group I there were 7 boys and 9 girls and in Group II, 8 boys and 8 girls.

Materials Eighteen stories consisting of an act followed by a sanction were told to the Ss by the E; for example, "A little child was tending his/her baby brother for his/her mother. The mother got angry and spanked him. Was tending the baby brother good or bad?" Punishment in every story consisted of a mother, "getting angry and spanking" the story character. Reward consisted of a mother "giving the child a good surprise." A pilot study was conducted to determine what was considered rewarding and punishing by the children.

The character in each story was referred to as a "child," and the pronouns coincided with the sex of the S being tested. In nine of the stories the character was rewarded and in nine stories he was punished. In six stories the character performed a socially approved act; six performed a neutral act; and six engaged in bad behavior. Consensus between three adult raters was used to determine the three types of acts; good, neutral, and bad.

Procedure Each S was tested individually and received three stories from each of the six categories. To randomize the order of the stories, a container was provided for each of the six categories, in which the three stories from each category were written on separate pieces of paper and placed in these containers. The child selected one of the three stories from each container and placed the six selected stories in a large container. He then drew one of the six stories from the

large container and gave it to the E to read to him. S repeated the procedure of drawing from the large container, giving each story to E to read, until all 18 stories had been presented. In addition to randomizing the stories, this procedure eliminated possibility of getting stories from the same group in sequence.

Responses were tabulated for each story by assigning a value of one when he said "good" and 0 when he said "bad."

RESULTS AND DISCUSSION

The data were analyzed with a 2 X 2 X 3 repeated measures analysis of variance. The first factor (A) was age; the second (B) was type of sanction, reward or punishment; and the third (C) was story content, good, neutral, or bad. The analysis of variance summary is presented in Table 3. All the main effects were significant; age, sanction, and story content. Inspection of the means showed that the older children more frequently rated the actions positive $\overline{X} = 1.67$ vrs. $\overline{X} = 1.45$.

TABLE 3

ANALYSIS OF VARIANCE SUMMARY TABLE
FOR JUDGMENTS OF GOOD

SOURCE	df	MS	F
A (age)	1	2.29	4.16 *
B (story)	30	0.68	
C (sanction)	1	53.13	96.60 **
AC	1	2.75	2.58
BC	30	1.06	
D (content)	2	70.39	127.98 **
AD	2	1.31	1.98
BD	60	0.69	
CD	2	3.64	6.63 **
ACD - (within)	2	.58	-----
BCD - (between)	60	.55	-----
Error	0	0.00	

* $p < .05$, ** $p < .01$

Stories followed by rewards were judged more positive than those followed by punishment, $\bar{X}$ = 2.08 vrs. $\bar{X}$ = 1.03. Stories with good acts were rated more positive than stories with neutral acts and stories with neutral acts judged more positive than those with bad acts; $\bar{X}$ = 2.42, $\bar{X}$ = 1.86 and $\bar{X}$ = .39. These findings were expected and it is the Sanction X Content interaction which more accurately described the phenomena. The cell means are illustrated in Figure 1. While it is clear that both sanction and content influence judgments, the sanction of reward was relatively ineffective when the content was bad.

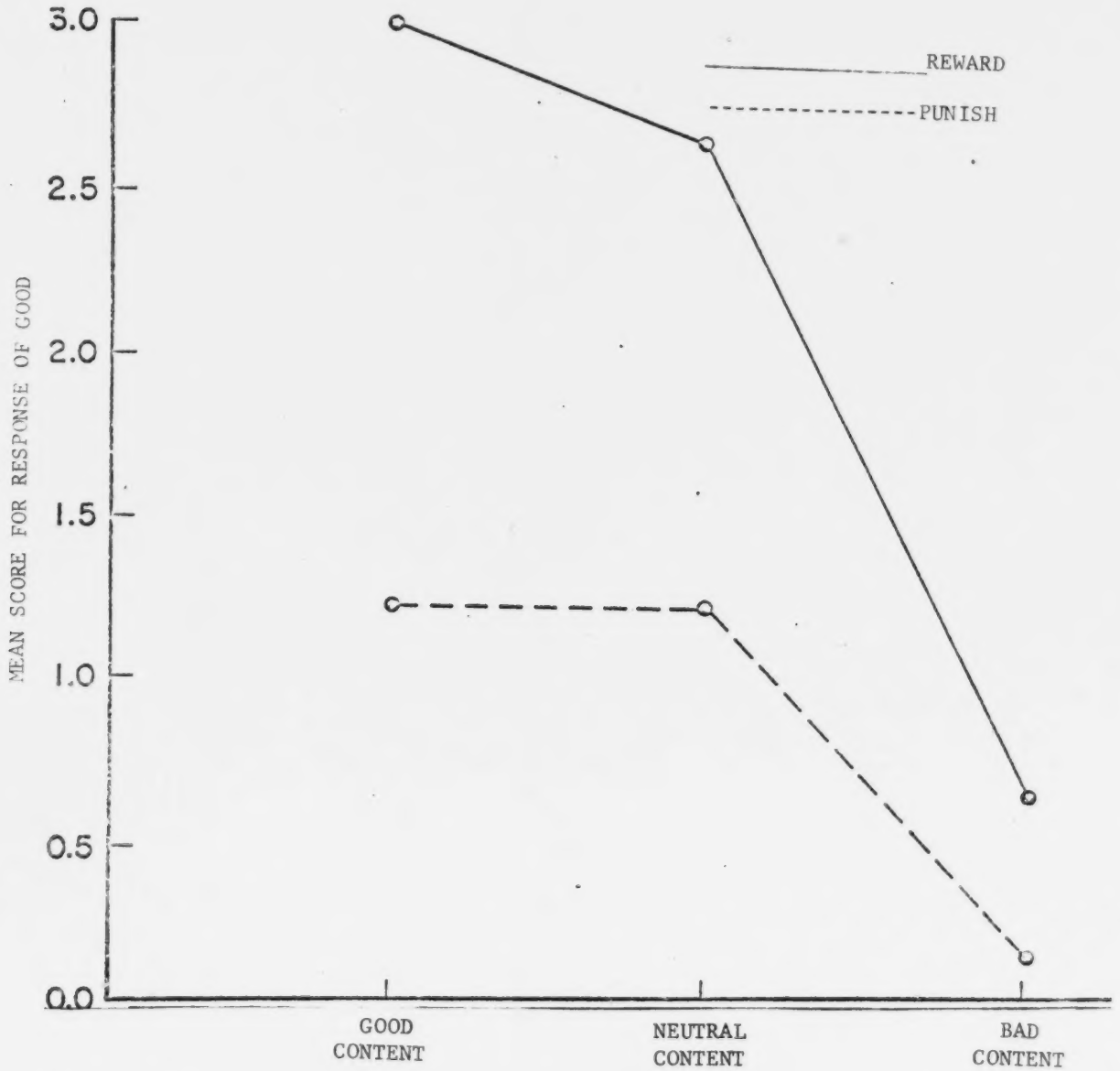

Figure 1. The mean number for responses of good for the three types of story content and two kinds of story sanction.

Surprisingly, older children were not more sensitive to the information given in the story content or to the effects of sanctions. One explanation for this lack of Age X Content or Age X Sanction interaction is that the age difference between the groups was not large enough. However, the age difference was large enough to produce the main effects for age. The fact that younger children more frequently judged an act bad across all story situations suggests that saying an act is bad may be a safer answer for a child when faced with a problem of judging good or bad. The finding that bad acts (Figure 1) are judged bad regardless of the sanction suggests that children learn avoidance responses first or that they are more quickly sensitized to negative situations. The similarity in judgments and the similar effects of sanctions on both the neutral and good contents indicates that children react to the neutral and positive acts in these stories in much the same way. This explanation is preferred to one which states that the content was actually not different in the neutral or good stories because if the content was judged the same by the Ss then the significant main effects and progressive ordering of means for content would not have occurred.

In summary, it is concluded that the influence of the sanction is affected by the content of the story. Negative acts are relatively more independent of sanctions than neutral or positive acts. Therefore, while children's judgments are dependent upon the sanctions of reward and punishment, these other factors must be considered. These findings indicate that researchers investigating independence of sanctions should follow the precautions urged by Medinnus when he reviewed experiments investigating immanent justice, i.e., the content of the stories must be controlled before comparing results from one experiment with the finding of other investigators.

THE EFFECT OF TRAINING CHILDREN TO MAKE MORAL JUDGMENTS THAT ARE INDEPENDENT OF SANCTIONS[1]

Piaget and Kohlberg believe that moral reasoning is developed as the organism interacts with the environment (Piaget, 1932; Kohlberg, 1964). They indicate that the rate and the stages are relatively stable and sequential among all human beings and are only slightly affected by outside influences. Piaget has shown that age changes in moral judgment occur but has not shown exactly what influence various factors have in producing this change. Some recent studies (Bandura and McDonald, 1963; Crowley, 1968; Jensen & Larm, 1969; Turiel, 1966) indicate that significant gains in moral reasoning are possible following short programs of training. The Bandurn and McDonald, Crowley, Jensen and Larm studies were concerned with training subjects to consider the intentions of the actor when making moral judgments (e.g., a child purposely throws a ball through a window as opposed to another child who accidently throws the ball through the window.) Unfortunately, it has not been shown that other areas of moral judgments can be influenced by training. Kohlberg (1963) cites several types of immature moral judgments characteristic of children in the heteronomous stage. One of these specific dimensions is "independence of sanctions." Piaget proposed that the child's ability to judge the rightness or wrongness of an act is dependent on the sanction administered. A young child is described as being in a heteronomous stage of development where he has unquestioning respect for adults and their rules. If an adult rewards an act, then the child will judge the act as good without adequate consideration of other factors. The child's judgments are dependent on the sanction. Kohlberg cites an example. Young children were asked to judge a helpful obedient act (attentively watching a baby brother while mother is away) followed by punishment (the mother spanks the babysitting child). He says that many four-year-olds simply say the obedient boy was bad because he got punished; in fact, they may even invent a misdeed to account for punishment. Kohlberg does not relate a misdeed, but from a previous study conducted by the investigator (Jensen & Hughston, 1970), a response to the above story might be that the boy threw the baby on the floor and that is why he got spanked. Kohlberg goes on to say, "In general the four-year-olds defined the story act as good or bad according to the reward or punishment rather than according to the rule or adult command. The older children showed considerable conflict, some of the seven-year-olds defining right and wrong in terms of the rule and showing concern about the "injustice of punishing good and rewarding evil." A survey of the literature in the specific dimension of independence of sanctions indicates that it is relatively unreaserched.

This experiment was designed to determine if pre-school children could be trained to disregard the sanction following an act when they evaluated the act on a good/bad dimension. In this experiment, two types of training were employed. The two types are patterned after the programs used by Crowlev and Jensen & Larm. These researchers predicted

1 Credit is extended to Karen Houghston who assisted at all phases of this experiment.

This experiment was accepted for publication in the Journal of Developmental Psychology.

that training that encouraged discovery and verbalization of a principle would be more effective than training that focused primarily on choosing the more correct of two resposes. Crowley found no difference between the methods but Jensen & Larm found the discussion procedure more effective.

METHOD

Subjects

Seventy-two white, middle-class children attending the Brigham Young University Child Development Laboratory were used. Even though this sample is not representative of many populations, the effect of the experimental manipulation of these children's responses should not be atypical. They were randomly selected from an initital population of 90 to form three groups of six males and six females at age four and at age five.

Materials

Large booklets containing illustrations of the stories to be told in the pretest, training sessions, and posttest were prepared. Stories were approximately 30 words in length and depicted a child's act followed by a sanction. The composition of the two types of stories included (1) good act followed by punishment and (2) bad act followed by punishment. The rationale for using only the sanction of punishment came from a preliminary experiment by Jensen & Houghston (1970), where they found it difficult for children to judge acts independent of the sanction when the sanction was punishment. Another reason for using stories of good acts followed by punishment and bad acts with punishment was that it would be less confusing to the subjects in the training sessions if only one type of sanction was used. From the previous experiment the investigators found almost all of the subjects described the act as bad when the bad act was followed by a punishment. The story with a bad act followed by a punishment was included to avoid a response set of good. The character in the stories was a female for female subjects and a male for male subjects. The punishment in each story consisted of a mother getting "mad" and spanking the story character. The negative nature of this sanction was determined by a pretest given to each subject included in the experiment.

Procedure

The experimental design had three phases: a) a pretesting session in which the ten pretest stories were told to the subjects, five good acts followed by a punishment, and five bad acts followed by a punishment. The stories were written on individual papers, folded, placed in a container, and mixed. Subjects then drew a story from the container to produce a random order of presentation. The experimenter then read the selected story, showing the illustration which coincided, and then asked the subject whether what the child did in the story was good or bad.

In recording and scoring the responses, a score of 1 was given for a response of good and 0 given for a response of bad. A subject's score, then, could range from 0 through 5.

The second phase consisted of 10 - to 15 - minute training sessions. Ten stories were presented each day for eight days. The subjects were randomly assigned to three groups: the discussion group, the verbal discrimination group, and the control group. Children were trained in groups of four or five subjects. The training for the verbal discrimination group was explained as a game in which the winner would receive a prize. At the end of each training story, a poker chip was given to those with the correct answer. An answer of good or bad was the only response requested. No discussion followed. The one with the most chips at the end of the week was the winner. The winner received a prize at the end of each week. All subjects received a prize on the last day for participating. Each subject in the group was asked for his answer, changing the order of who was asked first each time. The subjects were working for reinforcement in this experimental condition, and the significant variable was whether or not the correct answer was given.

The discussion group was presented with the same type of stories each day. The stories were read in the same manner. The discussion group did not receive poker chips for correct answers. A verbal response from the trainer told the subjects whether his response was correct. After the response was made, a group discussion followed focusing on why the answer was good or bad, as well as on why the child in the story was punished. It was pointed out that not everything that is punished is bad. Both procedures inevitably had much verbal reinforcement for correct answers. Female teachers in the nursery school were used as the trainers and different teachers were used each day for each group so the quality of verbal reinforcement could be equally distributed. Each trainer was associated with each group an equal number of times. A correct answer for a good act with a punishment was "good," and for a bad act with a punishment, "bad."

The subjects in the control group participated in question and answer activities not having anything to do with moral training, but requiring personal-social interaction with the same set of teachers.

The third phase consisted of the posttesting session. Between three and eight days after the administration of the last training session, all subjects were individually posttested using the same pretest procedure described except that different stories and different pictures were used. The delay between the last day of training and the posttest was equal for each of the three groups. An attempt was made to posttest an equal number of subjects from each group on each day. Both the pre- and posttests were administered and scored by two male assistants who were unaware of the subjects' experimental assignment. The assistants did not posttest the same subjects they tested on the pretest.

RESULTS AND DISCUSSION

A repeated measure analysis of variance design was used; Factor A was age, B was the three conditions, C was sex. The pre- and posttest (E) was the repeated measure for the six subjects in each cell. For each subject only the stories with good acts followed by punishment scores were analyzed, since the stories with bad acts followed by punishment were included as foils and subjects almost always rated the act as bad. A repeated measure design was employed instead of an analysis of covariance since an initial difference between the groups on the pretest means was noted. The analysis of covariance was not considered the appropriate correction for initial between group differences as opposed to within group difference.

There was a significant age effect, F (1/60) = 7.35, $p > .01$. The means for the four- and five-year-old subjects were $\bar{X}$ = 2.42 and $\bar{X}$ = 3.63 respectively. The only other significant main effect was the pre-posttest F (2/62) = 19.19, $p < .01$. No sex differences were found, $\bar{X}$'s = 3.01, and 3.21. There was a significant Conditions X Pre-Posttest interaction, F (2/62) = 4.27, $p < .025$. In Figure 1 it can be seen that large gains for the training groups between the pre- and posttest but almost no change for the control. Because of the initial group difference, the difference between the two training methods is difficult to compare. Fortunately, the means for the two training groups were below the pretest means for the control group, so the higher posttest scores for the trained groups cannot be attributed to initially higher scores. The steep slope for the discrimination group shows that this procedure can produce rapid gains in moral reasoning and suggests that the posttest difference between the training groups should not be attributed to the initial difference.

Finding that older children more frequently say a good act is good, even when it is followed by punishment supports the Piagentian belief that judgments made independent of sanctions are typical of more mature children. A check of the pretest means showed that the older children scored higher $\bar{X}$ = 2.2 vs. $\bar{X}$ = 2.7 than the younger children, but the still larger posttest difference of $\bar{X}$ = 2.65 vs. $\bar{X}$ = 3.57 suggests that the training was more effective for the older children. Within the theoretical framework of Piaget and Kohlberg, it might be concluded that the older children were closer to the time when they would move towards a higher level of thought. An alternate compatible explanation is that the older children are more intelligent and socialized, thus being able to profit more from any kind of training program. Failure to find a sex difference is not surprising, since previous research in the area of moral judgments rarely reveals sex differences in performance.

The superiority of the two training groups relative to the controls presents a difficult interpretation problem from the Piagetian theory, which maintains that slow natural changes of the thought processes underlie the developmental changes observed in responding to the moral dilemma such as these used in this experiment. Obviously, since no attempt was made in the two weeks of training to influence unrelated and underlying thought processes and because important maturation changes are unlikely to occur within two weeks, it is concluded that the training produced changes in the children's moral reasoning about these moral issues.

Turiel (1966) when discussing the Bandura & McDonald study, explains that the changes found following the brief training program represent only surface changes and the underlying thought processes are unaffected. Turiel seems to ignore the problem that these so-called surface characteristics were originally cited as the measure of the underlying thought processes. If a child is trained to multiply correctly, divide or perform some other mathematical operation, do we conclude that only a surface characteristic of numerical reasoning has been altered or do we conclude that the child now reasons differently? In summary, it is concluded that the training programs on intentionality and now independence of sanctions have changed the subjects' reasoning about these and perhaps even other related kinds of moral questions.

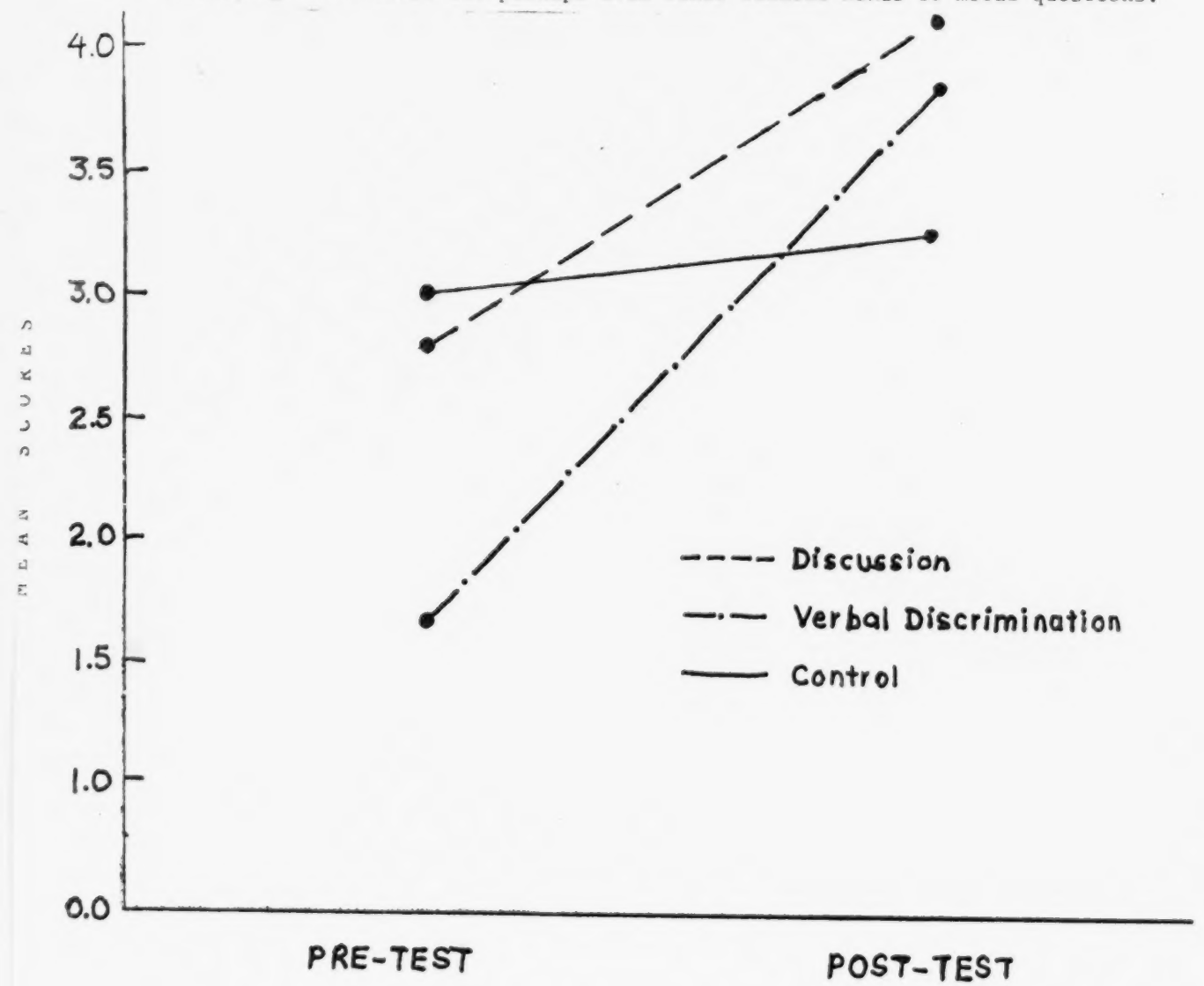

Figure 2. Mean Pre- and Posttest Scores for Control and Two Treatment Groups.

THE EFFECT OF TRAINING FOUR- AND FIVE-YEAR-OLD CHILDREN TO MAKE MORAL JUDGMENTS INDEPENDENT OF SANCTIONS[1]

Several researchers when considering the devopment of children's moral judgment have challenged the cognitive developmental theories of slowly maturing cognitive processes divided into stages of development. A study by Bandura and McDonald (1963) demonstrated that social reinforcement and modeling procedures accelerate the development of moral mature judgments. They hopothesized that moral judgments are less age-specific than previously believed and that moral orientations can be altered and even reversed by the manipulations of response-reinforcement contingencies. A series of experiments by Jensen and associates (Jensen and Larm, 1970; Jensen and Hafen, 1970; Jensen and Hougston, 1971; Jensen and Hall, 1972) have also shown that it is possible to train children to make more mature moral judgments. In each experiment the children were exposed to methods of training designed to increase maturity of moral judgments. A consistent finding in all of the studies was that children who received training made more mature moral judgments in the area specified. Evidence also supported the idea that effective training must include material and illustrations that are related to the child's experience.

Little reaearch has been done with young children related to the moral element called independence of sanctions. Kohlberg (1964) reports that when four-year-old children are told a story about an obedient act (e.g. attentively watching a baby brother while mommy is away) followed by punishment (e.g. mother spanks the baby-sitting child) they said the obedient boy was bad because he got punished. They may even invent a misdeed to account for this punishment. Kohlberg (1964) further stated that:

> In general, the four-year-olds defined the story act as good or bad according to the reward or punishment rather than according to the rule of adult command. The older children showed considerable conflict, some of the seven-year-olds defining right and wrong in terms of the rule, and showing concern about the "injustice" or punishing good and rewarding evil. These older children, however, still explained the rightness and wrongness of an act in relation to sanctions, but took a long-range or probabilistic view of this relation. Disobedience might have been rewarded in that situation, the child said, but in general it would still lead to punishment (p. 23).

Other studies relating to independence of sanctions were conducted by Jensen and Houghston (1970) and Jensen and Houghston (1971). Jensen and Houghston (1970) studied four- and five-year-olds. In this study the subjects were told a total of eighteen stories and asked if the child in each

1 Credit is extended to Joan Gerrard who assisted at all phases of this experiment.

This experiment has been submitted for publication.

story had performed a good or bad act. The stories were classified according to the kind of situation or act and the kind of sanction administered following the act. The composition of the six types of stories included (1) a neutral act followed by a reward (NR); (2) a neutral act followed by punishment (NP); (3) a bad act followed by reward (BR); (4) a bad act followed by a punishment (BP); (5) a good act followed by a reward (GR); and (6) a good act followed by a punishment (GP). The children judged bad acts more independent of sanctions than neutral or good acts. Therefore, while children's judgments were dependent upon sanctions of reward and punishment, the type of act also affects the extent to which the judgment is independent of sanctions. They suggested that researchers investigating independence of sanctions should follow precautions urged by Medinnus (1959) when he reviewed experiments investigating immanent justice; the content of the stories must be controlled.

Jensen and Hughston (1971) also studied the effects of training four- and five-year-old children to make moral judgments which are independent of sanctions administered by adult authorities. Seventy-two four- and five-year-old children were trained to make moral judgments independent of adult sanctions. Some subjects were trained by reinforcing correct choices with a poker chip, giving the children no explanation or discussion, while others were able to discuss the reasons for making their choices. Following training both groups made more responses which were independent of sanctions than the subjects not receiving training. The effects of training were discussed in terms of Piaget's theory of moral development. No test was made of the permanency of the changes resulting from the training. There were no differences in the results of the two training procedures, verbal discrimination and discussion.

An unusual and surprising finding in the Jensen and Hughston experiment was a change in the control group from the pretest to the posttest. Not only did the trained children show improvement between the pretest and the posttest, but the control subjects also improved. Among the interpretations of the findings was a suggestion that the experience of taking the pretest was sufficient to effect a change in the children's reasoning; that is, taking the pretest may have been sufficient to cause the change on the posttest. This explanation regarding the effect of the pretest was post-hoc and needs to be verified. It is felt that the Jensen and Hughston experiment should be replicated for the following two reasons: (1) to determine the effect of the pretest experience, and (2) to determine the long-term effects or relative permanence of training by administering a second posttest with a delay longer than one week. Jensen and Hughston concluded that a surprising number of children were already able to make mature judgments independent of sanctions on the pretest. This discrepancy between the Piaget and Kohlberg conclusions and the data reported by Jensen and Hughston sould also be investigated to verify if a sizeable percentage of children of this age have this maturity. In addition to more fully understand this phenomena the interactions between pretesting and training needs to be examined. This was impossible in the design and procedure used by Jensen and Hughston.

Subjects

The original sample consisted of 72 children, 36 boys and 36 girls, ranging in age from 54 to 67 months. The average age was 59.3 months. These children were enrolled in the Child Development Laboratories at Brigham Young University during the spring semester. This was the total enrollment in four laboratory groups. The subjects were from white, middle-class homes. Before the study began, each of the children in the four nursery school laboratory groups was asked two questions to determine if the child considered spanking a form of punishment. Sixteen children from each laboratory group, eight boys and eight girls, were selected by sex to participate in the study from the total of those who considered spanking a form of punishment. The 32 girls and 32 boys in the final sample were randomly assigned to one of the four treatment groups by sex and laboratory group. The four groups are referred to as A, B, C or D.

Materials

Booklets containing illustrations of stories of good or bad acts followed by punishment were used during the pretest, training and posttest sessions. The stories were similar to those used in the study by Jensen and Hughston (1971). There were two types of stories: (1) good act followed by punishment (GP), and (2) bad act followed by punishment (BP). Four- and five-year-old children usually described a bad act followed by punsihment as "bad" and therefore the story sequence, bad act followed by punishment was included to avoid a response set of "good" following the GP stories.

Five stories of each of the two story types (GP and BP) were used during each training period. There were five training sessions making a total of 50 stories administered to each subject during the experimental training sessions. Five stories of each of the two story types were also used for the pretest and posttesting sessions. The punishment in each story consisted of a mother getting "mad" and spanking the child in the story.

All stories and pictures used in the study were pretested to a trial group of 44 four- and five-year-old children not included in the experiment. The group consisted of 22 boys and 22 girls selected randomly from three other child development laboratories. These children ranged in age from 54 to 67 months. Each child was asked to state whether he thought the story and pictures depicted a good or a bad act. Three stories and two pictures were eliminated from an original set because part of the trial group saw them as bad and part of them saw the stories and pictures as good. A 98 percent agreement between subjects as to the "goodness" or "badness" of an act or picture was required for any given story and corresponding picture to qualify for the final study.

Treatments

The experimental design consisted of five phases. During the first phase, each child was asked two questions: (1) What would happen to a child who did something bad? and (2) Do you think the mother might get mad and spank the child? If the child responded to spanking as a punishment he was considered part of the total population from which selection was made for the final sample in the study.

Phase two consisted of pretesting sessions in which ten stories were told to one half of the subjects, those in treatment groups A and B. There were five GP (good act--Punishment) stories and five BP (bad act--punishment) stories presented. The stories were written on individual sheets of paper, folded and placed in a container. Subjects drew a slip of paper from the container to randomize story presentation. The research assistant then read the selected story while showing the corresponding picture to the subject. The subject was then asked whether what the child did in the story was good or bad. A response of "good" was scored one point and no points were given for a response of "bad."

The third phase consisted of five training sessions for the children in treatments A and C. Each session was approximately 10-12 minutes in length. The subjects in each training group were told they were going to play a game. A prize would be given to the subjects who gave correct answers to the stories (e.g., A little child was cleaning the room and picking up his/her toys. His/Her mother got mad and spanked him/her. Was cleaning his/her room and picking up his/her toys good or bad?). The children individually responded in random order either "good" or "bad." No discussion accompanied each story. At the end of each story a piece of cereal was the prize given to those children who answered correctly. The order of children who answered first after each story was randomized. Ten stories were presented during each training session on five consecutive days, making a total of 50 stories presented during the five training sessions. The assistant read the selected story, showing the corresponding pictures to the subjects. Student teachers in early childhood education were trainers. A different teacher administered the training sessions each day in order to randomize trainer differences. The subjects in treatment B and D (the control groups) participated in free play activities in the laboratory during the training sessions for treatment groups A and C. The free play materials and equipment included puzzles, small manipulative table toys, sensory experiments, and climbing apparatus. Free play activities were not related to the moral judgment training.

The fourth phase of the study consisted of the first posttest. Following the administration of the fifth training session all subjects were individually posttested in the same manner as the pretest but different stories and pictures were used.

The fifth and concluding phase of the study constituted the second posttest given four weeks following the administration of the first posttest. It was administered in the same manner as the first posttest but with different stories and illustrations. The second posttest was given to all subjects in the study to test the effect of training over time.

Three assistants received group and individual training in the administration and scoring of the pretests and posttests. The first assistant administered the pretest to all subjects in treatments A, and B. The second assistant administered the first posttest to all the subjects. The third assistant administered the second posttest to all the subjects. Three other assistants were used during the training. One of the principle investigators and another assistant recorded the responses of the subjects. The children were tested individually in an experimental testing room by the assistants. The testing time for each child in the study was approxi-

mately 10-12 minutes for each of the two posttests. Only the GP (a good) act followed by punishment) stories were scored. It was possible for each subject to obtain a score of 5 for each test.

Results

The data was analyzed using the Modified Abbreviated Doolittle routine. The summary for the first posttest is presented in Table 4 and the delayed posttest is presented in Table 5. The levels (2 X 4 X 2 X 2) included sex, the four laboratory groups, receiving or not receiving a pretest, and receiving or not receiving training. On the first posttest there was a significant training effect but also a training X pretest and sex X pretest interaction. The means for this analysis are presented in Table 5.

TABLE 4

Analysis Summary Table of Responses on Posttest #1

Source	df	Mean Square	F
Sex	1	.56	9.00
Group	3	.92	.72
Pretest	1	.56	2.45
Training	1	45.56	22.09**
Sex X Group	3	.0	.05
Sex X Pretest	1	4.00	10.60*
Sex X Training	1	.25	.20
Group X Pretest	3	.23	.18
Group X Training	3	2.06	1.61
Pretest X Training	1	2.25	13.50
Group X Pretest X Training	3	.17	.13
Group X Sex X Pretest	3	.42	.33
Group X Sex X Training	3	0.00	0.00
Sex X Pretest X Training	1	1.57	1.27
Sex X Group X Pretest X Training	3	1.23	.96
Error	32	1.28	

*p <.05 **p <.025

TABLE 5

Mean Scores of Subjects on Posttest #1
Pretest, Group, and Sex

Treatment Groups	Male	Female	Total
A Pretest and Training	4.62	4.87	4.50
B Pretest and No Training	2.12	3.25	2.93
C No Pretest and Training	4.25	4.12	4.18
D No Pretest and No Training	3.12	2.62	2.87
Total	3.53	3.71	3.62

Since there were no laboratory group effects the means for the laboratory group are not reported. Inspection of the means shows that both training groups score higher $\bar{X}$'s = 4.5 and 4.18 as compared with $\bar{X}$'s = 2.93 and 2.87 for the no training groups. The females also score higher $\bar{X}$ = 3.71 vs 3.53. The training X pretest interaction is due to the higher score for the trained group that had a pretest, $\bar{X}$ = 4.5 as compared with $\bar{X}$ = 4.18 for the training group that did not receive a pretest. There was almost no difference between subjects who received a pretest and those who did not among the no- training groups $\bar{X}$ = 2.87 and 2.93. The sex X pretest interaction results because females who received the pretest score higher than females not receiving a pretest ($\bar{X}$'s = 4.06 vs. 3.36). But males who received the pretest did not score higher ($\bar{X}$'s = 3.36 vs. $\bar{X}$ = 3.68). The same general pattern is found

in the analysis of the data from the delayed posttest. There was a significant training effect, a pretest effect and a sex X pretest interaction. The summary is presented in Table 6 and the means in Table 7.

TABLE 6

Modified Abbreviated Doolittle Analysis
of Responses on Posttest #2

Source	df	Mean Square	F
Sex	1	0.00	0.00
Group	3	1.17	1.01
Pretest	1	1.00	5.99*
Training	1	33.06	17.44**
Sex X Group	3	.17	.14
Sex X Pretest	1	2.25	27.00**
Sex X Training	1	.56	.77
Group X Pretest	3	.17	.14
Group X Training	3	1.90	1.64
Pretest X Training	1	.06	.27
Group X Pretest	3	.08	.07
Group X Sex X Training	3	.56	.40
Group X Sex X Pretest	3	.73	.63
Sex X Pretest X Training	1	.23	.20
Sex X Group X Pretest X Training	3	1.40	1.21
Error	32	1.16	

*p < .05 **p < .025

TABLE 7

Mean Scores of Subjects on Posttest #2
Pretest, Group and Sex

Treatment Groups	Male	Female	Total
A Pretest and Training	4.38	4.38	4.38
B Pretest and No Training	2.50	3.25	2.87
C No Pretest and Training	4.25	3.87	4.31
D No Pretest and No Training	2.87	2.50	2.68
Totals	3.50	3.50	3.56

Again, the trained groups scored higher than those not receiving training. The groups receiving the pretest also scored higher, but the pretest X sex interaction shows that as in the first posttest the females who received the pretest score higher than females who do not ($\overline{X}$ = 3.81 vs. X = 3.18). For males the effect was in the opposite direction with the $\overline{X}$ = 3.44 for males receiving the pretest vs. 3.56 for those not receiving the pretest.

Discussion

In addition to finding that the training was effective the interactions between the sex and pretest, and pretest and training was significant and

unexpected. The finding that the children responded with almost 60 percent of their responses mature or ignoring the parental sanction also is unexpected from the point of view of Piaget and Kohlberg. Furthermore, because of the relative maturity of judgment among these preschool children one would expect that it would be difficult to effect improvement. However, after the training the subjects were responding with greater than 90 percent mature responses.

Jensen and Hughston speculated that merely taking the pretest might cause a child to re-examine his judgments and recognize the more mature response. This speculation appears to be false; for subjects in group B who had a pretest but no training had almost the same scores on the first posttest ($\bar{X}$ = 2.93) as the no-training no pretest group ($\bar{X}$ = 2.87). Even receiving two moral reasoning tests failed to produce chance as evidence by the total score of group B on the second posttest ($\bar{X}$ = 2.68). However, the pretest did produce two other results; the pretest training interaction and pretest-sex interaction. As described in the results section, the pretest produced a higher score. It is reasoned that the pretest may have sensitized the children to focus on the relevant attributes of the experiences presented during the training program. This explanation, of course, must consider why the pretest produced an improvement for girls but not for boys. This unusual finding might initially be attributed to change but when the same pattern occurred on the second posttest these authors feel that the sex difference must be considered. Basically, the pretest facilitated development of change for females but not for males. This is difficult to explain because sex differences have not ordinarily been found in investigations of moral reasoning among young children. There seems to be no existing data or theory to explain this finding. A limited empirical generalization might be that since the pretest seems to facilitate the type of change produced by the training then the greater change among girls indicates girls are more susceptible to the general effects of this type of social training.

Finding the same basic results after a two months delay supports the belief that the training was not producing a superficial and/or transitory verbal response. It is felt that the training produced either a change in some cognitive structure as described by Piaget and Kohlberg or else enabled the children to understand and interpret a basic concept, in this case independence of sanctions. If only the second (conceptual learning) was produced, then it must follow that adequate mental structure or development was present among these children. If this is the case then Piaget's failure to find this type of reasoning was not a result of immature cognitive development but primarily resulted from the lack of social experience or training directly related to the concept in question. Piaget somewhat acknowledges this consideration when he proposes that being exposed to moral dilemmas creates 'disequilibrium' which causes a child to re-examine his existing beliefs and develop more mature reasoning.

Because a number of recent experiments (Bandura and McDonald, 1963; Crowley, 1968; Jensen and Larm, 1970; Jensen and Hafen, 1971; Jensen and Hughston, 1971; Jensen and Rytting, 1972; Jensen and Hall, 1972; Vance, Crooper, and Jensen, 1972) are demonstrating that it is possible to teach concepts

which were typical if not restricted to what Piaget and Kohlberg regarded as lower levels of moral reasoning, (heteronomy or levels 0, 1 and 2), it may be desirable to reconsider the concept of stages of moral reasoning. Nevertheless, while research may question the validity or necessity of Paiget's mental stages the reaearch cited has supported Piaget's findings about typical modes or dimensions of children reasoning. It is felt that this aspect, identifying types of reasoning, of Piaget's theory of the development of moral reasoning may constitute his most important insights. This experiment supports this descriptive aspect of Piaget's theory and suggests that in this and related areas of moral reasoning planned social experiences or training could move children from what has previously been called heteronomous to autonomous reasoning.

THE EFFECTS OF INFORMATION AND RELATEDNESS ON CHILDREN'S BELIEF IN IMMANENT JUSTICE[1]

According to Piaget young children believe that automatic punishments emanate from things themselves or flow from God's will. These conceptions of immanent justice are based on external constraint, diminish with maturation, are considered to be immature. For Piaget, the idea of immanent justice is closely correlated with the idea of physical causation. Nature is seen as a harmonious whole and is animistic or anthropomorphic. The child is held to believe ". . . that night should come in order to put us to sleep, and that the act of going to bed is sufficient to set in motion that great black cloud that produces darkness . . . In short, there is life and purpose in everything. Why then should not things be the accomplices of grown-ups in making sure that a punishment is inflicted where the parent's vigilance may have been evaded?" (Piaget, 1948, p. 255.)

Piaget's conceptualization has been subjected to empirical analysis. For a review of research in this area see Medinnus (1959). Basically, the idea that belief in immanent justice decreases with age has been substantiated with the exception that it may not appear until after four. This suggests that the belief may develop through interaction with adults.

Medinnus used two of Piaget's original stories in his research. He analyzed each story separately and found different results for the two stories. He, therefore, hypothesized that one of the important variables is the type of story that the child is told. The child's response might depend on how clear the situation is to the child, how much experience the child has with this situation, or how much causal information is contained within the story. If the story contains information which would indicate a naturalistic explanation, the child might recognize it and give a naturalistic response. Likewise, if the child has personal experience or if the events are logically related with the situation, he would be more likely to give a naturalistic explanation. The purpose of this experiment was to test the prediction that fewer immanent justices explanations would follow stories that contained causal information about a misfortune and where there was a relationship between the wrong doing and subsequent misfortune. Thus it would be expected that most immanent justices responses would occur when there was less information and relatedness. Conversely the least immanent justice should occur when both information and relatedness are present in the story.

[1]Credit is extended to Marvin Rytting who assisted at all phases in this experiment.

This experiment has been accepted for publication in the Journal of Developmental Psychology.

METHOD

Subjects Subjects were 25 second-grade children from the Wasatch Elementary School in Provo, Utah. All subjects were white from middle-class homes. There were ten girls and fifteen boys. Testing was done at the elementary school during the winter session.

Materials Six stories similar to those used by Piaget were constructed. Three of these stories contained information about a misfortune in the story. The other three contained no such information. In two stories the accident was completely unrelated to the misdeed. In two other stories the accident was in some way related to the misdeed. In the last two stories the accident was a direct result of the misdeed. Thus, there were three categories of relatedness and two categories of information. Each of the six stories initially belonged in only one of the six categories.

During the experiment, the experimenter thought that the child might be responding to unidentified and unique characteristics within the individual stories so when 60 per cent of the subjects had been tested, the information was reversed, i.e., stories without information became stories with information and vice versa. This was done to counter balance effects due to unknown content variables. In order to clarify how information was added or removed, an outline of each story is presented. The brackets following each outline contain the information which was omitted or inserted.

> Related Story I: Boy plays with forbidden scissors and is cut. (He didn't know how to use scissors and scissors were too heavy for him.)
>
> Related Story II: Mother tells girl not to play with neighbors dog but girl disobeys and is bitten. (Dog did not know girl and thought girl would hurt him.)
>
> Partially Related Story I: Boy steals apples and is chased. During subsequent chase a bridge collapses and boy falls into water. (Bridge was old and rotten.)
>
> Partially Related Story II: Girl steals rope to make a swing. Later rope breaks during swinging and girl is hurt. (Rope wasn't strong enough to hold her weight.)
>
> Unrelated Story I: Girl hurts her brother. Later bicycle tips over. (She went around corner too fast.)
>
> Unrelated Story II: Boy plays with camera and breaks it. Later he lies about breaking camera and falls out of tree. (Steps on limb that was too small to hold his weight.)

Procedures The experimenter saw each child individually and told him that they were going to play a game in which the experimenter would tell the subject some stories and ask him what he thought about them. The

subject was given a die and asked to roll the die before each story to determine and randomize the order of story presentation. Each subject received six stories. The experimenter then told the subject the selected story and asked him the following three questions: Why did this happen? Would it have happened if the child had been naughty? Did the subject know that the child had been naughty? The experimenter then asked if the subject had ever experienced the particular situation and a score of 1 was recorded if the subject answered in the affirmative. This measure is referred to as experience.

RESULTS

The data were analyzed with a 2 X 3 X 24 factorial design. The first factor (A) was information, the second (B) was relatedness. Factors A and B are fixed. (Winer, 1962 p. 290.) The experience score was used as a covariate and immanent justice was the dependent measure. Computation of the experience score was described in the preceding section. The subjects' responses to each story were rated using a scale ranging from 1 through 6 to produce the immanent justice score. A score of 1 meant the child used immanent justice and a 6 indicated that the child gave naturalistic explanations. Points along the 1-6 continuum were identified by using a criterion modeled after the five types of immanent justice described by Jahoda (1958). A weight of one was assigned to a response if it was pure immanence. If the response mentioned and act of God, it was assigned a weight of two. If the response was inconsistent, a weight of three was given. When the response indicated a struggle with the inconsistency, a score of four was given. Five points were assigned when the children invented or created a naturalistic explanation that linked the misfortune to the deed. Six points were assigned when the child stated and gave clear recognition that the misfortune was an accident and was clearly naturalistic in their interpretation. It was possible to assign all the subjects' responses into one of these six levels of judgment. A sample of responses at each level are presented in Table 8. The terse sample responses were derived from more extended statements typically given by the children. Sample responses for the third probing question are omitted because a year answer to this question was extremely rare. Piaget found that many of his subjects answered this question in the affirmative.

A high correlation was obtained between the scores of two raters ($r = .90$). The scores of one rater were used in the analysis. Both the main effects and interaction between information and relatedness were examined. The analysis of covariance summary is presented in Table 9. Information was not significant. Relatedness was significant but the significant Information X Relatedness Interaction indicates that the effect of relatedness is influenced by the amount of information present. The means for the main effects and cells are presented in Table 10.

TABLE 8

Sample Responses for the Six

Levels of Immanent Justice

Response Level	Sample responses using the camera story and the first two probing questions: (1) Why did this happen? (2) Would it have happened if the child had done nothing wrong?
1. Pure immanence	1. Because the boy broke the camera and lied to his father. 2. No.
2. Act of God or supernatural	1. God was punishing him for being bad. 2. No.
3. Inconsistent	1. Same as response levels above. 2. Yes
4. Struggle with inconsistency	1. Same as above. 2. Yes, but maybe it happened because the boy wasn't careful. (Response given us a second thought.)
5. Naturalistic but linked to wrong doing	1. The boy was thinking about how he lied to his father and was feeling bad so he didn't watch where he put his feet and slipped. 2. Either yes or no.
6. Naturalistic	1. Because the branch was not strong enough. 2. Yes.

TABLE 9

Analysis of Covariance for the Effects of Information and Relatedness on Immanent Justice Scores with Experience as the Covariate

Source	df	MS	F
Subjects	23,126	9.66	
Information (A)	1,148	.45	.16
Relatedness (B)	2,147	10.30	3.71*
AB	2,147	10.90	3.92*
Pooled Error	33,116	2.77	

* $p < .05$

TABLE 10

Mean Immanent Justice Scores for Main Effects and Cells

	Directly Related	Partially Related	Un-Related	Mean of Row
Information	5.16	4.24	3.72	4.37
Noninformative	3.88	4.12	3.56	3.85
Mean of Column	4.52	4.18	3.65	4.11

The row and column means are ordered as would be predicted by an additive model described in the introduction, i.e., immanent justice explanations decrease with an increase in the amount of relatedness and information. Only one cell means departs from this additive prediction. This cell mean is the noninformative and directly related category. Note in Table III that for the three stories with information there is a consistent increase in the immanent justice responses with a decrease in relatedness but this increase is not consistent in the noninformative row. One explanation for this finding is that relatedness only makes a difference when the story has information or that information is most effectual when the story is directly related. Regardless, the least amount of immanent justice occurs when the story has information and is directly related. Sex differences were tested with a Mann-Whitney test and were not significant (Z = .196, df = 24, $p < .05$.)

DISCUSSION

The analysis supports the prediction that the amount of immanent justice is dependent upon the amount of causal information and the amount of relatedness in the moral dilemma. The methodological implication of this finding is clear. It is possible for researchers to find varying percentages of children giving immanent justice responses, even within the same population, if the content of the stories is not equated with regard to the amount of relatedness and perhaps even information. Accordingly, statements about percentages of children who give immanent justice responses should be accompanied by a specific description of the material used to elicit statements about immanent justice. These two considerations have been recognized by Medinnus but these data substantiate his proposal.

The finding that the directly related - noninformative story produced fewer immanent justice responses than would have been predicted by the additive model is difficult to explain. This is the story: "There was once a little boy who didn't mind his mother. He took the scissors one day when he had been told not to. While he was trying to cut some paper, he cut his finger." This is one of the stories used by Piaget in his original research and is also the story that Medinnus found produced the largest amount of immanent justice. Comparing this story with the others did not lead to the identification of any specific characteristic which differentiated it from the others.

Piaget indicated that 73 per cent of his seven and eight-year-old subjects believed in immanent justice. In contrast to this, only one of the seven and eight-year-old subjects in the present experiment (4 per cent) could be classified as exclusively believing in this super human force. Piaget also found considerable belief in animism and in an immanent justice administered by God. In the present study, less than 5 per cent of the responses mentioned God as part of a punishment scheme and only 3 subjects (12 per cent) showed any tendency towards animism or immanent justice admin-

istered by God. Although some of the difference between the present results and those previously reported can be explained by the methodological difference, some of this difference is undoubtedly due to the difference between the socio-cultural environements of lower class Swiss children in the 1930's and middle-class American children of 1970.

The majority of the children (56 per cent) responded to some of the stories with naturalistic explanations and to others with immanent justice explanations. It appeared to the examiners that the children preferred the naturalistic explanations. For example, some subjects first gave immanent justice responses but after giving a naturalistic explanation wanted to change their previous answers. However, none of the subjects ever expressed a wish to change previous naturalistic explanations to immanent Justice responses. Many subjects, particularly those who gave exclusively naturalistic responses, reacted with laughter and/or embarrassment to the second and third questions. One girl even replied, "That depends on if it's the real world or make-believe." It seemed that when children could think of a nautralistic response they would give it but when they could not they reverted to explanations using immanent justice. An explanation for this clinical or field observation and for the finding that more naturalistic responses are given when information is provided, is that children have a need to understand, order, or explain the world which they experience. When something happens they want to know why. The lack of an explanation causes cognitive dissonance or some type of discomfort. Accordingly, children learn that certain types of explanations have broader general utility in providing answers. They find that many events can be explained through reference to a super-natural force -- God, luck, immanent justice. As they learn more about the world they increasingly use naturalistic explanations, but in areas where the children lack experience or knowledge they employ immanent justice explanations. It is as if the belief in immanent justice is gradually crowded out by knowledge of scientific facts or as the child's knowledge and experience expand. Therefore, the belief in immanent justice diminishes with increasing age. Ten of the subjects consistently gave naturalistic explanations and often looked embarrassed at the suggestion that there could be any other explanation. However, it would be unjustified to assume that because these ten didn't use immanent justice explanations, they rejected the possibility of the existence of such a force. Even these ten children, as well as most adults, may still propose an explanation using immanent justice when they are responding to an unfamiliar situation or lack a naturalistic understanding of the situation.

CHANGING CHILDREN'S BELIEF IN IMMANENT JUSTICE[1]

According to Piaget, young children believe in immanent justice or that misfortune will automatically follow wrong-doing. Probably no other aspect of Piaget's theory of moral development has received more attention from contemporary researchers than this dimension. Basically, researchers have supported Piaget's contention that there is a decrease in immanent justice with age. However, another set of factors complicate the findings. Lerner (1937) found the decrease greater among different socioeconomic groups. Liu (1950) found that there was less belief of immanent justice among Chinese. Dennis (1943) found a higher proportion of Hopi Indian children expressing a belief in immanent justice. Therefore, it appears that other sociocultural factors may be related to the belief in immanent justice among children. In addition, Medinnus (1959) and Jensen and Rytting (1972) found that the amount of immanent justice in subject's beliefs was influenced by the interaction of naturalistic information in the story and the degree of relatedness between the wrong-doing and subsequent misfortune. Finding that immanent justice sometimes does not decrease with age, and that there are cultural and socio-economic differences suggests that this belief may be largely the result of social learning. A social learning interpretation, is suggested by Medinnus (1959) when he said that a belief in immanent justice often results from parental teachings such as; "It serves you right," "That will teach you to be careful," or "God made it happen to teach you a lesson." If a belief in immanent justice can result from inadvertent parental teachings, it should be modifiable through direct training. Some other aspects or dimensions of Piaget's theory of children's moral thinking has been shown to be influenced through short training procedures, (Turiel, 1966; Crowley, 1968; Jensen and Larm, 1969; Jensen and Hafen, 1972; Jensen and Hughston, 1972; Bandura and McDonald, 1963). A belief in immanent justice has not been shown to be affected by direct teaching or educational experience. One purpose of this investigation is to test the assertion that children's belief in immanent justice is primarily learned and/or can be altered through a short intensive educational program.

Piaget states that immanent justice does not become evident in children until about the age of six. In a preliminary investigation by Jensen and Hemmingway (1971) it was found that four-

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[1]Credit is extended to Jeanne Hall who assisted at all phases in this experiment. A manuscript has been submitted for review.

and five-year-old children use an immature form of naturalistic explanations and immanent justice. A response was classified as immature naturalistic if it contained natural elements but when there was no logical or causal relationship between the misdeed and event. Another form of immaturity was noted when the children sometimes stated that the result of a misdeed was followed by a punishment from an authority figure such as a teacher, even when they were told that the adult never found about the child's error. Jensen and Hemmingway concluded that four and five-year-old children do not make either mature naturalistic responses or immanent justice responses. They suggested that in the typical process of learning naturalistic explanations they also learn immanent justice, i.e., when adults teach children about the natural lawful order of the world they also teach immanent justice. It is felt by these researchers that children often fail to understand the lawful cause and effect relationship between many acts and their natural consequences as taught by adults; therefore, the adults are actually teaching children to expect consequences that are not logically related to the misdeed from the child's perspective. In these cases a child is actually being taught immanent justice. A desirable training program would help the children perceive the difference between those chance negative events which follow an act and negative events which lawfully result from specified behavior. Such a program would teach a belief in naturalistic explanations without having the accompanying increase in immanent justice. In order to test this hypothesis, two training programs were developed. In one training group subjects would receive stories of an act followed only by related consequences. The second group would receive stories with both related unrelated consequences. The basis for this type of program stems from the Jensen and Ryeting study which found that immanent justice was a belief that more frequently occurred when the act and misfortune was unrelated. It was predicted that children who are exposed to situations, some having related and others unrelated consequences, would learn that some misfortunes are naturalistic consequences and others chance events. Accordingly these children would be more likely to develop mature beliefs in naturalistic misfortune and be less likely to believe in immanent justice.

Subjects

The Ss were 48 white, middle-class, predominantly Mormon, four- and five-year-old children in attendance at the Brigham Young University Child Development Laboratories during the fall semester of 1970. The Ss were randomly selected from all the children who gave immature responses on a pretest and then randomly assigned to the experimental and control groups. Three groups consisting of sixteen Ss were equally divided between sexes.

Procedure

The experimental design was thus composed of three parts: a pretest, a training procedure, and a posttest. Each of these parts will now be explained in more detail.

Pretest - The pretest was used to identify children who gave more immanent justice and immature naturalistic than mature naturalistic explanations of why misfortune follows wrong-doings. If a child gave six out of eight immanent justice or immature naturalistic responses, he was classified immature. The pretesting sessions lasted for a period of two days and were conducted by ten assistants randomly assigned to pretest all of the subjects. Each assistant took one-tenth of the subjects. The assistant tested each subject individually and began the pretest by saying, "I have several stories to tell you. Please listen closely and look at the pictures carefully." The assistant then read each of the eight stories to the child and recorded the child's exact words in response to the questions asked after each story. The two types of stories were alternately given to the child; first, a story with an unpleasant consequence related to the act; and second, a story with an unpleasant consequence unrelated to the act. The assistant were unaware of the hypotheses of the study and were specifically trained by reading the stories and recording of responses of sample children not involved in the experiment.

Training Procedure - The training procedure followed twenty-one days after the pretests and was continued for six days. Six trained assistants conducted the training sessions and randomly alternated their assignment to each of the three groups. The training groups consisted of four to five children and required twelve to fifteen minutes per session.

The first experimental groups were presented four stories each day for six days, making a total to twenty-four stories which were presented. The assistant read the story stressing the fact that no authority figures observed the misdeed or found out about it. The assistant pointed out that the negative related consequences did occur to the offender in the story. This consequence was then discussed with the subjects. The subjects were then asked to explain the causal relationship between the misdeed and the related consequence. The subjects were rewarded at the end of each training session for their participation. An example of a story with discussion questions follows:

> A mother told her little girl not to play with the neighbor's dog. The little girl did not mind her mother. She went over and played with the dog anyway. Her mother never found out that she had played with the

the big dog. What happened to the little girl? What really happened was that the dog bit the little girl's hand. Why did the dog bite the girl's hand?

(a) If the little girl's mother had said it was all right to play with the dog, would she have been bitten anyway?

(b) Why do dogs bite children?

(c) Did the dog know that the little girl had disobeyed her mother?

The second experimental group received similar training except that two of the four stories which they received at each training session had consequences which were unrelated to the misdeed. For these stories the experimenter pointed out that there was no causal relationship between the two events, ahe misdeed and the consequnece. An example using the preceeding situation would be:

A mother told her little girl not to play with the neighbor's big dog. The little girl did not mind her mother. She went over and played with the dog anyway. Her mother never found fut that she had played with the dog. What happened to the little girl?

What really happened to the little girl was that later that afternoon when she came home, she became sick to her stomach. Why did the little girl get sick?

(a) If the little girl's mother had said it was all right to play with thd dog, would she have gotten sick anyway?

(b) Why do children get sick?

(c) Did the dog know that the little girl had disobeyed her mother?

The other two stories for this group contained related consequences, randomly selected from those given to the first experimental group. Reinforcement was given at the end of each training session for participation.

The third training procedure was a control situation. During this period the assistant read the subjects a nursery school story.

After the reading was completed, the assistant asked the subjects several discussion questions about the story. Upon termination of the questions, all subjects were reinforced with a food treat for their cooperation and participation.

Posttesting - Twenty days after the final day of the training sessions ten assistant began the posttests. These assistants were not used in either the pretest or the training procedures. Each tested an equal number from each treatment condition. The subjects met individually with an assistant and were presented the same set of eight stories that they received during the pretest. The procedure was identical with that of the pretest. Each subject was then assigned a point for each of the response types recorded.

After the testing was completed, all of the responses given by the children were judged by two raters who did not participate as assistants in the study. (The raters were trained by rating the responses of children who were previously tested but were not part of the sample.) If the two raters did not agree on the category that a response should be assigned, a third rater resolved the discrepancy. The responses of the first question in each story were placed into one of the eight categories: I don't know, unpleasant consequences related to the act, unpleasant consequences unrelated to the act, guilt feelings, neutral consequences or nothing happened, parental punishments, irrelevant, and no answer. The responses to the second question in each story were placed into four categories: irrelevant, immanent justice, naturalistic, and no answer; and the responses to the third question in each story were put into four categories: yes-naturalistic, no-immanent justice, irrelevant, and no answer.

Results

The experimental design used in this study required a $2 \times 2 \times 2$ repeated measure analysis of variance. The mathematical model for the analysis is designated as $Y = A(I) + B(J) + C(IJK) + D(L) + AD(IL) + BD(JL) + ABD(IJL) + CD(IJKL) + E$ where in A represents training, B represents sex, C represents subjects, and D represents pretest and posttest.

The subjects responses to the three questions following each story were summed and an immanent justice score for each subject was compiled by adding the immanent justice responses from questions two and three with a response of an unpleasant consequence unrelated to the act for question one. Approximately 75% of the subject's responses could be classified as either immanent justice or mature naturalistic, the remaining responses falling into the other categories such as immature naturalistic (parental punishment), irrelevant, or I don't know, etc. The mature naturalistic response

was basically the converse of an immanent justice response and the mature naturalistic score when analyzed yielded approximately the same findings (except in the converse) as the immanent justice scores. Hence only the immanent justice scores are reported.

There was a significant treatment by pretest - posttest interaction, as seen in Table11 for related stories and Table 12 for unrelated stories.

Table 11

Analysis of Variance Summary for

Immanent Justice Responses for Related Stories

Source	df	MS	F
Treatment (A)	2	33.84	7.70*
Sex (B)	1	3.38	0.77
Subjects (C)	42	4.39	0.00
Pre and Post (D)	1	37.50	16.49*
A X B	2	1.53	0.35
A X D	2	16.34	7.18*
B X D	1	2.67	1.17
A X B X D	2	0.82	0.36
C X D	42	2.27	0.00
Error	95	428.63	

*$p < .001$

Table 12

Analysis of Variance: Summary for

Immanent Justice Responses for Unrelated Stories

Source	df	MS	F
Treatment (A)	2	11.76	1.55
Sex (B)	1	0.51	0.06
Subjects (C)	42	7.57	0.00
Pre and Post (D)	1	0.84	0.29
A X B	2	7.70	1.02
A X D	2	22.53	7.69*
B X D	1	0.51	0.17
A X B X D	2	7.51	2.56
C X D	42	2.93	0.00
Error	95	541.99	

*p<.001

For both the related and unrelated stories, the results demonstrate that the subjects made significantly less immanent justice responses following training. The decrease was significant for both types of

stories (immanent justice responses following related stories, $F = 7.18$, $df = 2.95$, $p < .001$; immanent justice responses following unrelated stories, $F = 7.69$, $df = 2.95$, $p < .001$). The groups means for this interaction are presented in Figures and .

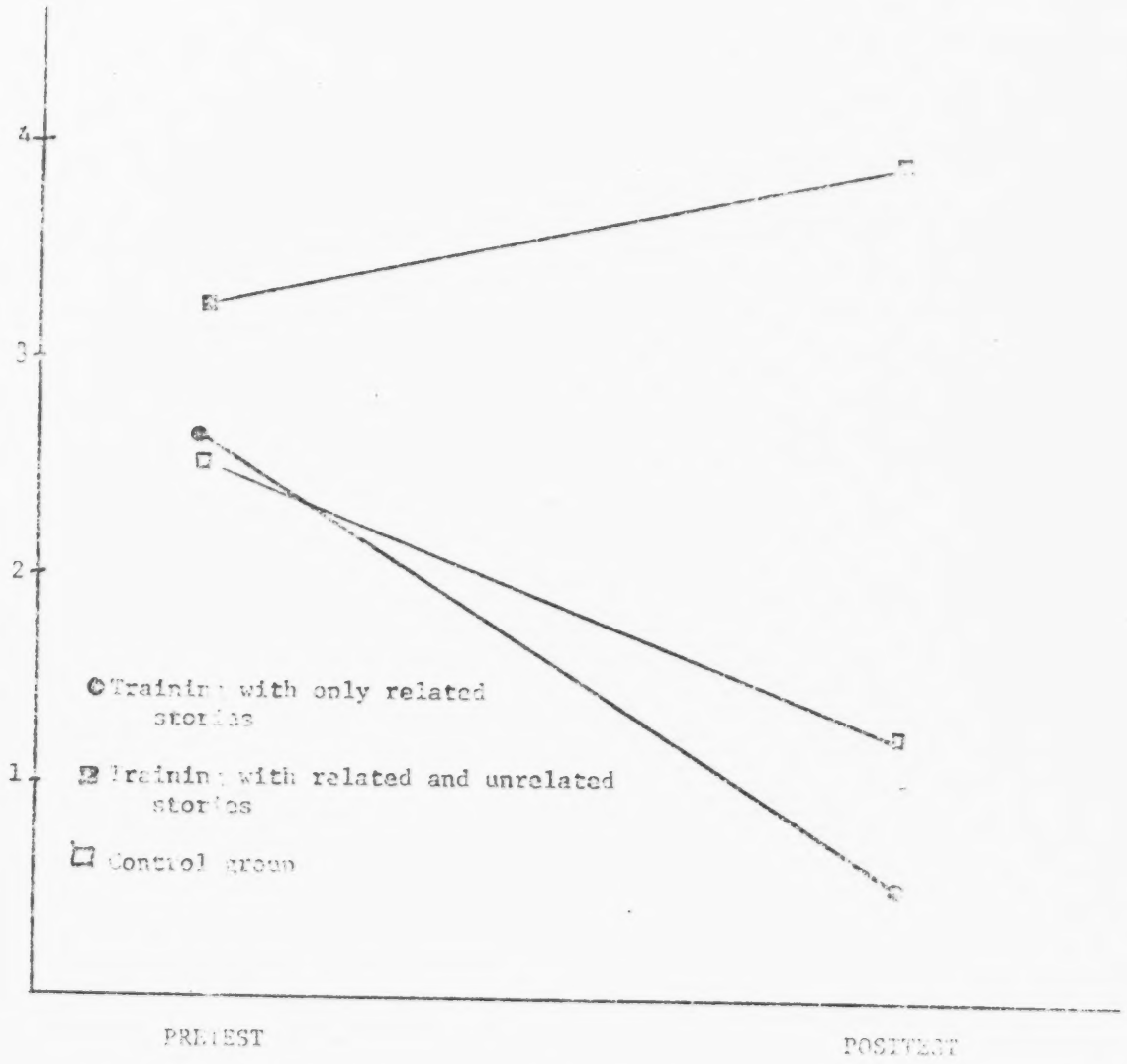

Figure 3. Means of the three groups from pretest to posttest for immanent justice responses following related stories.

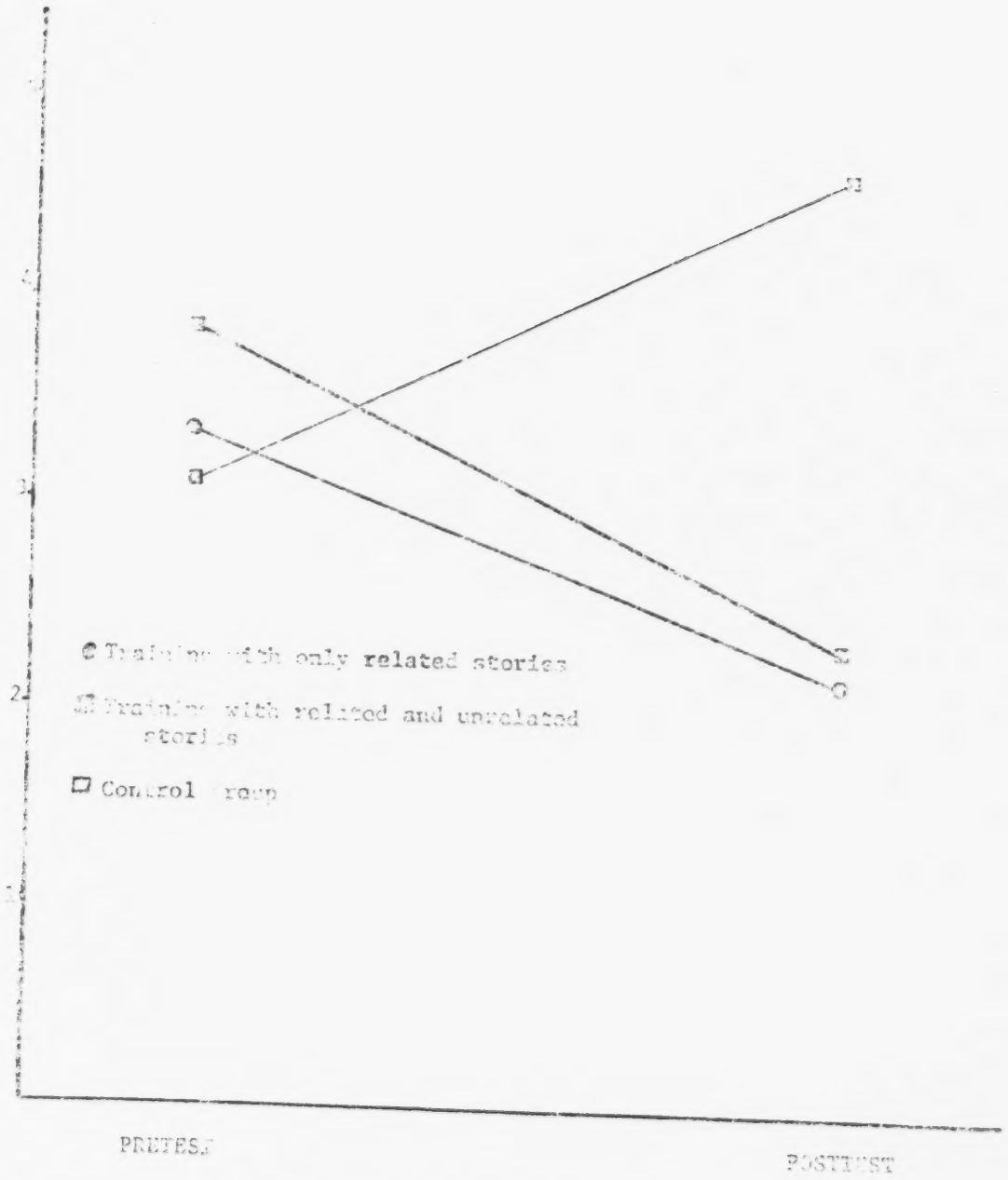

Figure 4 . Means of the three groups from pretest to posttest for the immanent justice responses following unrelated stories.

It can be seen that the general pattern for the related and unrelated stories are similar; the training subjects make fewer immanent justice responses following training, but the control subjects do not. For the related stories, the mean pretest and posttest scores for the control group are almost the same ($\bar{X}$ = 3.33 and $\bar{X}$ = 3.75) indicating that the interaction results from the lack of change for the control group and the corresponding drop in immanent justice responses for both training groups. For the unrelated stories, the posttest scores of the control groups also decrease but the posttest score of the control group increased. To determine whether the interaction was due to the decrease of the trained groups or to the increase of the control group post hoc comparisons were made using the t statistic. The pretest - posttest differences for both training groups was significant (t = 1.68, df = 30, $p < .05$, $\bar{X}_1$ = 3.37 vs $\bar{X}_2$ = 2.18 for training with related stories), (t = 1.95, df = 30, $p < .05$, $\bar{X}_1$ = 3.81 vs. $\bar{X}_2$ = 2.31 for training with related and unrelated stories.) The pretest - posttest difference was also significant for the control group but the difference was in the opposite direction (t = 1.97, df = 30, $p < .05$, $\bar{X}_2$ = 4.62).

While not a primary concern in this investigation, comparison between related stories were also made. On the pretest there was not a significant difference in the amount of immanent justice responses between the related and unrelated stories (t = 1.05, df = 94, $p < .05$, $\bar{X}_1$ = 2.94 vs. $\bar{X}_2$ = 3.40). Similar analyses were also made for the number of responses coded as naturalistic. The same general pattern and findings were found as the naturalistic scores were basically the converse of the immanent justice scores. Subjects made more naturalistic responses following the related stories on the pretest (t = 4.12, df = 30, $p < .01$, $\bar{X}_1$ = 6.25 vs. $\bar{X}_2$ = 4.23). On the posttest more naturalistic responses were made following related stories than following unrelated stories for the control subjects (t = 1.53, df = 30, $p < .1$, $\bar{X}_1$ = 6.94 vs. $\bar{X}_2$ = 3.56), and also for both traiing groups (t = 9.17, df = 30, $p < .001$, $\bar{X}_1$ = 11.25 vs. $\bar{X}_2$ = 6.31), (t = 7.47, df = 30, $p < .001$, $\bar{X}_1$ = 10.6 vs. $\bar{X}_2$ = 5.87). A separate analysis was also made on each of the probing questions (Questions 1, 2, and 3). It was found that the questions analyzed separately yielded the same pattern of results except for Question 2 where the differences approached significance.

Discussion

The primary puspose of the investigation was to determine if it is possible to influence children's belief in immanent justice with direct training. The data clearly indicates that this is

possible. The effectiveness of training was demonstrated for both types of training methods and for both types of story situations. The training used in this experiment simultaneously produced an increase in naturalistic explanations for misfortune where the misfortune was related to an act and a decrease in immanent justice responses for both related and unrelated stories. This finding indicates that the belief in immanent justice is likely not to be governed by slowly maturing cognitive structures but by social learning suggesting that age related changes in the belief are most likely due to the amount of formal and incidental learning of a child within a given culture. The requisite mental ability to comprehend the concept is of course necessary but these data suggest that the limiting or determining factor for children of this age is not the lack of mental structure or function. The failure to find difference between the two types of training methods indicates that the belief in immanent justice can be influenced by both of these approaches. The effectiveness of both methods suggests that the belief in immanent justice may be very malleable or receptive to change at this age.

The finding that was not predicted or expected was the increase in the amount of immanent justice responses by the control group receiving the unrelated stories. This increase could have been one of the statistically possible change occurrences, but the investigators believe that this change is probably due to the effect of the pretest. Jensen and Rytting found (1970) that more immanent justice occurs when the misfortune and the preceeding event are unrelated than when they are related. When the subjects were presented with the stories a second time and asked why the misfortune occurred and there was no relationship between the misfortune and the misdeed, the subjects may have sought for a socially desirable response. In this case an immanent justice response may have occurred under the more demanding conditions. It is interesting to note that this fits the prediction that immanent justice responses will occur more frequently where a naturalistic explanation for an event is less obvious. Note the control group increased in the number of immanent justice responses only for the unrelated stories. This latter finding is similar to the analysis which showed that training produced more naturalistic responses for related than unrelated stories.

In a study by Magowan and Lee (1970) on the type of stories used in studies of moral development, specifically immanent justice, it was found that the type of story itself, and the characteristics of the subjects, have great bearing upon the research findings. In their study they focused upon four main variables: stories depicting familiar versus unfamiliar situations,

multiple choice versus open-ended story questions, sex of the central figures in the story, and age and sex of the children participating as subjects. Important factors which might bear upon the children's responses were ones such as the linguistic ability or verbal fluency of the child, and the projective structure of the child (whether he sees the story characters as himself or others, his own age, or younger or older. Magowan and Lee concluded that children give more immature responses to stories with unfamiliar as opposed to familiar settings. They found no significant difference in sex. They also demonstrated that as the children increased in age they gave more mature moral judgments. They concluded that forced-choice instruments should be used wherever possible,instead of the traditional open-ended question. When the child had to think up responses to open-ended questions, he was much more likely to use immature, and in this case, immanent justice responses. This concern is not too relevant for this experiment since the three probing questions are of both forced-choice and open-ended questions, and the same general trend was found for the total summated score, and the questions analyzed separately.

It is interesting to note that a difference between related and unrelated stories was not found on the pretest. This is in contrast with the Jensen and Rytting study which found that relatedness of the misdeed and consequences was an important factor in whether children would believe in immanent justice. The failure to confirm this difference may be a result of the scoring procedure used. Jensen and Rytting used a scoring procedure similar to that used by Jahoda (1958) that involved more summating and rater evaluation. While the difference between the two scoring procedures is slight, it may have been responsible for the difference. Another factor which would account for difference is the age of the subject. The Jensen and Rytting subjects were approximately 7 years old whereas these subjects were younger.

Nevertheless, the basic question as to whether a belief in immanent justice can be affected by a short training program seems to be clearly answered in the positive. The failure to find a difference between the training methods is likely due to the relative effectiveness of either technique. This suggests that more mature reasoning in these areas can produce with a very minimal program for these very young children. It also is opposed to the belief that a development of mature moral responses occurs very slowly and primarily requires cognitive maturation and a continuing series of social interactions with adults or peers. It is these researchers' opinion that young children have the prerequisite cognitive abilities to make more mature moral judgments. This failure to develop more mature moral rea-

soning is a result of the failure to provide the appropriate minimal learning experiences. In fact, the improvement of the control group suggests that simply confronting the children with the dilemma is sufficient of affect a change in their reasoning.

CHANGING CHILDREN'S BELIEFS ABOUT PUNISHMENT[1]

Piaget (1932) described two stages in the development of moral reasoning. The first stage is called heteronomy; being subject to another's law. This occurs in early childhood shortly after the age of three and is formed in context of the inferior position the child holds in comparison with adults. The second stage, developing after the age of eight, is called autonomy; being subject to one's own law. Autonomy develops naturally from heteronomy through interaction and mutual respect between peers. Piaget believed that moral experience and adult precepts are assimilated and transormed by the child's slowly maturing cognitive systems. Piaget and Kohlberg (1964) have identified several aspects or dimensions of the heteronomous stage of moral reasoning. One dimension is particularly salient: Young children view punishment as having a punitive as opposed to a restitutive function and favor severe punishments for wrong-doing. When young children are presented a story about another child who has done something wrong and are asked what a fair punishment for that child would be, the majority will state or suggest a rather severe punishment. Characteristically, the punishment suggested does not allow for the restitution of damage. In contrast, older children will temper the punishment and propose a punishment that provides an opportunity for the transgressor to make restitution. This characteristic of young children's moral judgments has been collaborated by other researchers (Horrower, 1964; Johnson, 1962; Radke, 1964). Johnson and Medinnus (1969) when reporting Radke's experiment, showed that 74% of the children interviewed indicated that spanking was the type of punishment that they received even th their parents reported that they rarely used this type of punishment. In addition, 83% of the children favored spanking as the best punishment for a child who was naughty. Johnson and Medinnus concluded: "quite clearly the younger child's response to the questions was not related to the actual quality or quantity of the punishment he received, but to his conceptions of what the most appropriate punishment was (page 375)." Among psychologists, there is general agreement that the punitive as opposed to a restitutive concept of punishment is characteristic of Piaget's heteronomous stage or are characteristics of less developed stages of moral reasoning. However, there is considerable controversy about the origin and effects of experience on this and the other aspects of heteronomous reasoning. At the present time, several invest-

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[1]Credit is extended to Ann Rytting who assisted at all phase in this experiment. A manuscript has been submitted for review.

igators have demonstrated that they could train young children to make more mature moral judgments in some other dimensions. (Bandura and McDonald, 1963; Crowley, 1968; Jensen and Larm, 1969; Turiel, 1966; Jensen and Hughston, 1970; Jensen and Hafen, 1970.) The success of these brief training programs lends support to a social learning interpretation of the development of moral judgments or reasoning, as opposed to a cognitive developmental explanation. The cognitive developmental explanation generally assumes that more mature moral judgments must be preceeded by the slowly maturing cognitive systems. This experiment focuses on a dimension of moral reasoning which thus far has not been shown to be modifiable through a short training program. The dimension investigated is children's conceptions about punishment.

The Bandura and McDonal studies have been criticized because the posttest occurred immediately after training (Turiel, 1966). In fact, almost every experiment in this area of research has measured the effect within a two week delay. Accordingly, the durable or long-term effects of training have not been shown. Glassco (1970), recognizing this problem, located the subjects from Crowley's experiment and found they still perform better than the controls after an interval of six months. Thus a second concern of this experiment was to determine the long-term or delayed effects of the training.

Previous studies demonstrating the efficacy of training children to make more mature moral judgments did not claim to influence moral reasoning in areas other than the specific judgments being influenced. When a change is made in one area of moral judgment is there a cognitive change which affects the moral judgments in related areas? To answer this question it was decided to measure the effects of training a child's conception of punishment on another aspect of moral reasoning called independence of sanctions; it is the realization that an act is not judged good or bad because it was rewarded or punished. Small children are unable to separate an act from its consequence and thus judge the rightness or wrongness of an act by the sanction that follows. This dimension was studied by Jensen and Hughston, (1971). They found that a training program similar to that used by Jensen and Larm (1969) was effective in raising the level of moral judgments about the relationshp between an act and sanctions that may follow. Because of the logical relationship between independence of sanctions and judgments about punishment, it was thought that judgments regarding independence of sanctions could be influenced by training children to make more mature judgments about punishment. If this is possible it may be that moral judgments have a unitary cognitive base. But if training in one area does not affect the other, then it is suggested that training is producing a specific

cognitive response rather than stimulation general cognitive development. Accordingly, it was decided to measure children's belief in independence of sanction after they had been trained to make more mature judgments in the area of punishment.

Two experiments were conducted to answer these questions. The first will not be recorded in its entirely because it was a pilot study, and was characterized by a small sample. The procedure and materials was identical in the second experiment unless otherwise noted.

Method

Subjects

The subjects were 52 preschool children from the Brigham Young University Child Development Laboratory. During the winter session the laboratory received pupils from a white, middle-class, predominantly Mormon, socio-economic population. The subjects ranged in age from three years, ten months, to five years.

Materials

Booklets consisting of alternating colored pages were prepared for each subject in the experimental groups. These booklets illustrated each of the stories presented during the training session. Larger illustrations on poster board were prepared for each of the stories in the pretest, posttest, and delayed posttest. All of the stories presented on moral judgments were of the type used by Piaget but written with the differences in age, culture, and socio-economic class taken into consideration. The stories used for the control group were non-moral stories chosen from the picture book section of the Brigham Young University Curriculum Library.

Procedure

The experimental design is composed of four phases: (A) a pretesting session in which the moral judgment of the subjects was assessed in the area of punishment in order that the groups could be matched on this variable; (B) a series of five group training sessions in which each group received training appropriate to its respective treatment condition; (C) a posttesting session wherein all subjects were individually tested on stories similar to those used during the pretest but with which they had no experience; and (D) a delayed posttesting session comparable to the first posttest administered two months later. Each phase of the procedure will now be discussed in detail:

A. Pretesting Session: One of three female assistants saw each of the children in individual testing sessions which took place over a five day period. Before beginning the test, the assistant explained to the subjects that she would be reading some stories about children who had been naughty and needed to be punished. The children were asked to pretend that they were the mommy or daddy and to make up a good or fair punishment for the child in the story. The assistant then told the first part of the story which presented the account of the misdeed committed. The subjects were then asked what a fair or good punishment for that child would be. After the subjects had suggested a punishment, the aasistant continued by saying, "That is a good idea, but this little boy's (or girl's) father (or mother didn't think of that. Here are two punishments that his father thought of..." The two alternative punishments were then presented along with the appropriate illustrations and the child was asked to point to the best one. For each of the pretest stories presented, the suggested punishment and the choice of the alternative punishments were recorded. If the child appeared confused or was not paying attention, the story or the alternative punishments were repeated to insure an accurate representation of the child's judgments. Those subjects who would not respond to the questions were eliminated from the study.

In addition to the stories about punishment six stories presenting a dilemma of independence of sanctions were also presented to each subject. The stories consisted of instances in which a child was punished for doing a good act, and one story in which a child was punished for doing a bad act (used as part of a control for response set). The subjects were presented with the story accompanied by an illustration of the child performing the act and followed by the comment "and his mommy got mad and spanked him." The subjects were asked if doing the act was good or bad, and why the mommy spanked the child. These responses were also recorded verbatim.

The assistant administered the eight Piaget-type punishment stories in a counterbalanced order of restitutive and punitive punishments. The subjects were randomly assigned to one of the three treatment groups (reinforcement, discussion, or control) after having been matched for moral development, as determined by the pretest, and for sex and age.

B. Training Session: The week following the pretesting, the training sessions began. To facilitate training, each of the three groups was divided into subgroups of approximately five children. Each of these subgroups met with an assistant for training sessions on five days. Each session was 15 to 20 minutes in length and the total time spent in training by each group was equivalent and ranged from 80 to 85 minutues

At the beginning of the first session, the training was explained as a game. Each subject was given a booklet which contained two stick figure illustrations of the punishments from the story. He was also given a crayon with which to mark his answers on the booklet. After the presentation of each story, the subjects were instructed to make an X on the punishment they thought was the best. To facilitate subjects' understanding, the assistant pointed to the illustrations in a booklet identical to those used by the subjects as the punishments were presented.

The reinforcement group was presented with nine stories each day, making a total of 45 stories presented during training. For each story, the assistant read the account of the misdeed and choice of punishments, carefully pointed to the illustrations. After hearing the story, the subjects were asked to mark the punishment they thought was better by marking it was an X. When all of the subjects in the group had indicated their preference, the assistant identified the restitutive punishment and without any explanation distributed the ships to those who had marked the correct answer. The assistant then continued with the next story.

Ths discussion group was presented with five of the stories taken from those used in the reinforcement groups during that day (for a total of 25). After telling the story and the punishment choices, assistants elicited a discussion in the form of questions that attempted to focus on the purpose of restitutive punishment. One of the subjects who had marked the correct answer was asked why he thought that was the best punishment, and a subject who had marked the immature punishment choice was asked why he thought that was the best punishment. Care was taken by the assistants to involve each child in the discussion and to accept all answer given. Following the short discussion, the assistant continued with the next story without telling the children which was the best punishment and without giving any rewards.

The control group heard a non-moral story each day. They were also given booklets similar to those used in the training session with illustrations of questions about the story they had heard. Following the story, the assistant asked subjects questions related to the story and had them mark and X on the correct answer. After each question, the correct answer was revealed by the assistant the subjects who marked the correct answer were rewarded with a chip.

C. Posttesting Session: One week after the last training session, the individual posttesting sessions were begun. The assistants who gave the posttests did not participate in the training and did not know which subjects were in the various groups.

The order of subjects was randomly determined, except that the number tested from each of the three groups was kept constant as was the number from each group tested by each of the assistants. Each subject was given twelve stories with punishment alternatives. The assistant asked each child to suggest a fair punishment and to choose the best punishment alternative. In addition, six stories about independence of sanctions were also presented and the children were asked if the act was bad and why the child in the story was punished. All of the answers were recorded verbatim.

D. Delayed Posttesting Session: The subjects were given a delayed posttest consisting of twelve new stories on punishments two months after the end of the training session. Each child was seen by one of the two assistants who administered the posttest. Again each subject was asked to suggest a fair punishment and then to choose the better of two punishment alternatives. The subjects were tested in random order taking the same number from each day and assigning the same number from each group to each assistant, in order to eliminate assistant bias and control for the length of tiem that had elapsed since the training session.

In experiment 1 there were only 16 children. In the discussion group the assistants told the children which was the mature response during the discussion; whereas in Experiment 2, no indication of the assistant's bias or opinions were given a material reward (sugar-coated cereal) when they chose the correct response but no in Experiment 2.

Scoring and Analysis

The basic questions concerning the effect of training upon the level of moral judgments in the area of restitutive punishment were tested by performing planned comparison of means. The error sum of squares for these tested was computed using the one-way fixed effects model of the analysis of variance (Hays, 1963).

The scores were computed by assessing both the subjects choices of punishment and their verbal responses. The responses were scored as mature if they contained some attempt to incorporate a means whereby the guilty child could make restitution for what he did wrong or to include a punishment that was, as nearly as possible, the natural consequences of the misbehavior. Because of the possibility of selecting mature moral choices by chance and the assumption that the verbal responses were a more reliable indicator, the responses were weighted three and the choices received a weight of one. The responses and choices were also analyzed separately using the same type of statistical test and are referred to as response score and choice score. A rank order correlation between the rating of two independent scorers was computed. Because the computation was high (rho = .927, $p = < .001$),

the scores from one scorer were used. Only the choice score was computed in Experiment 1.

Results

The main concern of this experiment was whether training would increase the maturity of moral judgments in the area of restitutive punishments. This was measured by the number of restitutive punishments offered verbally and selected from the two alternatives (choice) on the posttest. The combined training groups were compared with the control group. The trained subjects made more mature responses in both experiments (Experiment 1: $t = 2.54$, $df = 13$, $p < .05$; Experiment 2: $t = 1.78$ $df = 39$, $p < .05$). Looking more closely we find that the combined training groups made more mature responses ($t = 1.37$, $df = 39$, $p < .01$) as well as, more mature choices ($t = 2.18$, $df = 39$, $p < .025$) in Experiment 2. The means for the discussion and verbal discrimination groups in Experiment 1 were 8.8 and 8.5, respectively, in comparison with the control group whose mean was 3.57. The means for Experiment 2 are presented in Table 13

TABLE 13

Mean Posttest Scores for Experiment 2

Measure	Group		
	Discussion	Reinforcement	Control
Posttest			
Total score	21.36	23.83	16.31
Choices score	8.22	8.50	6.87
Responses score	13.14	15.33	9.44
Delayed Posttest			
Total score	21.62	25.40	23.62
Choices score	8.54	7.50	6.87
Responses score	13.08	17.90	15.77

It was predicted that the discussion group would make more mature moral judgments than the verbal discrimination group which was 8.5. In the second experiment, the means of the discussion and reinforcement groups were 21.36 and 23.83, respectively. These differences were not significant and provided no evidence that discovery or verbalization of principle was more effective than reinforced discrimination as a training procedure.

It was predicted that the subjects in the training group could retain their level of moral judgments for an extended period of time. It was found that after a two-month period none of the trained subjects in either Experiment 1 or 2 declined in the number of mature moral judgments given. However, an unexpected and surprising finding occurred in both experiments. The control group improved significantly during this interim so that no significant difference existed between the combined training group and the control group after two months. The difference between the combined experimental groups and the control group on the delayed posttest was not significant in either Experiment 1 or 2, $p > .05$. The means in Experiment 1 were 9.2 for the discussion; 9.75 for the reinforcement and 7.4 for the control group. Comparisons between the two training programs were not significant on either the posttest or delayed posttest for either Experiment 1 or 2, $p > .05$. The prediction that subjects trained in the area of restitutive punishment would increase in the number of mature responses given in the related area of independence of sanctions was not supported, $p > .05$. A Pearson Product Moment Correlation was run between the scores for punishment and independence of sanctions and was not significant on the pretest or after training on the posttest. The correlations for pretest and posttest scores are -.03 and .15, respectively. There were no sex differences in the moral judgments on the pretest as determined by a Mann-Whitney test ($z = .68$).

Discussion

It is concluded that children exposed to the various training procedures made significantly more mature judgments about punishment on the posttest. The most provocative finding was the seemingly spontaneous improvement of the control group which took place between the posttest and the delayed posttest. Although this was unexpected it may be related to the finding that the discussion group did as well as the reinforcement group even though they did not have the more mature punishment identified for them. Piaget (1960) stated that with respect to the concept of conservation, a child's cognitive development will occur without formal teaching if the child is given sufficient experience or contact with the problem. Randall's research (1967) supports the idea that "testing a child on a number of conservation tasks... frequently causes him

to move rapidly toward an understanding of conservation of substance. Apparently the mere fact that a child is required to make judgments of this sort produces sufficient dissonance or to use Piaget's term, 'disequilibrium', that he is forced to re-evaluate his beliefs (Johnson and Medinnus, 1969, p. 125)."

Piagetans would likely argue that the same process holds true with regard to moral judgments. The most logical explanation of the delayed posttest results is that the testing procedure itself (or what Kohlberg calls exposure to moral dilemmas) is sufficient to cause some children to re-evaluate their beliefs and move toward more mature moral judgments. Another possible explanation that should be mentioned is the possibility that the assistants who gave the posttest and delayed posttest unconsciously gave the children a cue to the mature responses. This is unlikely because neither training group improved during this time. If the assistants were giving clues that would help the children make more mature responses on the delayed posttest, the training groups would also have improved between these two tests. There was not a ceiling effect for the training groups as their mean scores were only 22 out of a possible 48. The assistants were also unaware of the children's previous assignments.

One of the features on the statistics observed during the data analysis was the large standard deviation on the posttest and delayed posttest scores. The difference between the pretest and posttest variances was significant beyond the .025 level for each group. Analysis indicated that the effect of the training was not to increase each child's developmental level by a small amount, but to produce an obvious increase in the level of reasoning of some of the children while affecting the moral reasoning of the other children very little. In all three groups on the delayed posttest, 42% of the subjects improved by more than 15 points while 33% improved by less than 5 points. Only 25% were within 5 points. This suggests that the effect of training or experience up a child's moral reasoning is partly dependent upon his cognitive readiness to make the transition or understand the more advanced concept.

It is not surprising that most of the children learned to discriminate between punitive and restitutive punishments more readily than they learned to consistently give restitutive responses. The depth of understanding that is required in order to verbalize a concept is far greater than that required to make a discrimination. Bruner, Goodnow, and Austin (1956) state, "Many experiments in concept attainment, including our own, have shown that subjects are able to distinguish correctly exemplars from non-exemplars of a concept before being about to name the defining feature on which their judgments are based. The studies of Hall (1920), Smoke (1932), and Walk (1952) all provide examples (p. 60)."

This observation about concept attainment may also account for an observation that the Ss were unable to state why they had chosen or given a particular punishment. It is reasoned that a total grasp of the concept of restitutive punishment comes in three stages. The first stage is the point at which a child is able to discriminate between punitive and restitutive punishments, the second when he can give restitutive responses, and the third when he can explain the principle involved. Because the ability to state mature responses demands a higher level of verbal skill, it is understandable that the children varied more in their responses than in their choices.

Contrary to prediction, the discussion groups of both experiments did not make significantly more mature moral judgments than the verbal discrimination group or the reinforcement group. Crowley (1967) pointed out that effectiveness of explanatory techniques such as used by the discussion groups are dependent upon such variables as age and level of difficulty of the concept. It is felt that both of these variables contributed to the lack of difference between these two groups. The concept was difficult and the children were very young. Jensen and Larm (1969), in their training of intentionality with six year olds, found a significant difference between the discussion and verbal discrimination groups; Jensen and Hafen (1970), however, found no such difference when they repeated the study using three and four year olds. Jensen and Hughston (1971), in training independence of sanctions in four and five year olds, also found no difference between the two methods of instruction. It appears from these studies that a certain amount of maturity is necessary before a child can profit more from the verbal insights provided by the discussion method of training. Another variable that contributed to the children's inability to fully profit from the discussion method of training was the level of difficulty of the concept. In Jensen and Larm's study, the children were considered to have grasped the principle behind the mature moral response if they were able to verbalize that the naughtier child had committed the misdeed "on purpose." This verbalization was applicable to all of the test items. On the other hand, the subjects in this tudy were required to invent a restitutive punishment applicable to different situations described in each test item. Both Crowley (1967) and Jensen and Larm (1969) suggest that their training may be specific to the area of intentionality. The results of this experiment tend to confirm this possiblity. There was no correlation between the judgments made in the area of restitutive punishments and independence of sanctions. Moreover, training in the area of restitutive punishments did not facilitate advancement in the area of independence of sanctions. Other studies which lend credence to this position are those by Beohm and Nass (1962) and Durkin (1961) which found no con-

sistent relationship between judgments in two different areas of moral judgments.

In previous experiments on training moral judgment (Crowley, 1967; Jensen and Larm, 1969) and in Experiment 1 for this experiment, subjects were promised a material reward for choosing the mature punishment and then were able to make more mature choices and responses. In the second experiment reported here, the promise of a material reward was eliminated yet the training groups were still able to make significantly more mature judgments than the control group. This finding is in line with the studies done by McCelland and associates (Atkinson, 1958) demonstrating that the need for achievement operates as intrinsic motivation for learning. The children who were promised a material reward in Experiment 1 seemed to be more concerned with the total scores at the end of the training session, while those who did not expect a reward for answering correctly in Experiment 2 were judged to more concerned with each individual response. It was thought that those subjects who were working for a material reward focused their attention on the correctness of their answer.

The discussion group in Experiment 2 did not receive confirmation from an adult that the restitutive punishment was better. In Experiment 1 the correct choice was identified after the discussion was elicited through directive questions. Care was taken in Experiment 2 to present the questions without evaluating the responses given. In both of these studies there were no significant difference between the discussion groups and the other training groups. From this data one might infer that children of preschool age can recognize a more mature form of punishment when they are faced with two alternatives in a discussion which focuses on the restitutive purpose behind mature punishment.

Returning to the main point of this study, it is evident that training does contribute to the advancement in the level of moral judgments of punishment. It is possible to construe this finding as evidence that Piaget's theory of a slowly maturing cognitive process is unwarranted, since these advancements were obtained so quickly. However, another explanation which was proposed by Turiel and accepted by Crowley is that the training was effective because it dealt with relatively superficial responses. This explanation may be acceptable to explain the training of simple discrimination responses. However, the more complex task of formulating restitutive punishments to fit a given situation cannot be considered superficial. Nonetheless, it is ot proposed that this evidence refutes that aspect of Piaget's theory that says cognitive maturity must preceed moral advancement. The fact that some children grasped the concept of restitutive punishment

quite readily, while others made only a minimal change, suggesting that a certain level of cognitive ability was necessary before training would be effective. That training did facilitate a sudden advancement in the level of moral functioning appears to be in opposition to the idea of slowly maturing cognitive processes. However, Piaget was describing the usually or natural process of moral development when he used these terms. He would likely agree that specific situations designed to force a child to re-examine his moral position would speed up this process. In fact, Piaget himself suggested this when he said that being forced to make judgments created a "disquilibrium" which caused a child to re-examine his beliefs. However, the cognitive maturity necessary to understand the more advanced principle and to successfully re-evaluate one's beliefs appears to be existant with these preschool children, for without this level of cognitive maturity training would not be effective.

THE INFLUENCE OF ADULT COMMANDS ON CHILDREN'S MORAL JUDGMENTS[1]

Piaget (1932) proposes that the young child unquestioningly accepts and respects adult authority and assumes that adult beliefs are correct. Piaget presents the following example: Child were told a story situation in which a lazy pupil was forbidden by his teacher to receive any help in doing his homework from friends. However, a friendly classmate violated the rule imposed by the teacher and helped the pupil. The children are questioned as to whether they think the friend was right or wrong for helping, whether the lazy student would think he was right or wrong, what the teacher would think and what the mothers of the two boys would say. The majority of six-year-olds stated that the helping classmate was wrong to help the boy with his homework. However, by age nine a larger proportion of children recognized that there would be more than one perspective on moral values in the situation. Other researchers have further discussed this dimension of moral judgements (Lerner, 1937; MacRae, 1954). Younger children are said to judge an act as either good or bad primarily in terms of whether the act was in compliance with adult commands or prescriptions. For Piaget the influence of adult authority is so central an influence that Piaget definds children's moral reasoning as heteronomous, or being subject to another's law. Deference to authority is the primary determiner of young children's moral judgment during this stage of heteronomy. The child is thought to be unable to judge an act from a perspective other than that of the adult. A social learning theory would predict that a child is also simultaneously incorporating a number of attitudes and values about right and wrong from his social acculturation. Even at an early age a child would be learning that certain acts are good or bad independent of adult sanctions, as prescribed in his daily experience. However, this position is also consistent with Piaget and other cognitive developmental theorists who would also propose that a child assimilates experience, particularly social experience resulting from interaction with his family, then peers, and then with society in general. Nevertheless, the emphasis in social learning theory leads to the prediction that an act which was in violation of cultural more and/or an act which had been socially defined as wrong through the child's daily experience would be judged bad.

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[1]Credit is extended to Neal Draper who assisted at all phases in this experiment. This experiment has been submitted for review.

Conversely, an act would be judged good if it were defined by the social cultural experience of the child as positive. The effect of adult opinion would be less central if not minimized in more democratic child rearing contexts typical of contemporary child rearing practices. A test of Piaget's assertion, as opposed to a social learning emphasis, would appear when a child is asked to evaluate an act which is in compliance to adult commands but which is an immature act according to societal standards or the converse. Piaget's example of the lazy pupil being helped in an example of the latter, i.e. positive act that is contrary to an authorities command. This experiment was designed to determine if children in the lower or heteronomous level or reasoning, according to a Piagetian analysis, will judge an act in terms of criteria other than adult or authority constraints.

A mature moral judgment in this study is defined as the compliance with a socially accepted tule or a higher value within the culture, even when the act is in opposition with an adult rule. For example, in Western society it is generally agreed that human life, the welfare of other persons, helping others in need, and the protection of property, is of greater importance than compliance to a rule that does not involve human life, human welfare, others helping others, or protecting property, etc. Furthermore, when strict obedience to such a command will result in damage, injury, or neglect of another's welfare or property the obedience is deemed immature.

Method

Subjects

The subjects were children enrolled at Brigham Young University Child Development Laboratory in four nursery schools during the summer of 1970. Groups one and two consisted of three-year-olds while the third and fourth groups were four-year-old-children. A total of 54 subjects were tested with 38 of the test scores usable for analysis. Fourteen test instruments, 26 percent, contained inadequate verbal information to be scorable. Two subjects were later found to be below the age limit used for the study. The subjects were predominantly caucasion, Mormon, middle-class children living in the Provo, Utah area.

Instruments Used

Four categories of story situations were used as the measurement instruments. The stories involved short episodes involving an adult requestion and a child's subsequent behavior. A typical

story outline would be:

The child is instructed to stay in the yard.
The child notices a baby wandering into the street.
The child takes the baby off the street to a safe place.

The elements of socio-cultural maturity were solicited and judged by several adult raters to select acts which received a consensus of opinion. The combination of the adult requests and the child's behavior included: immature obey, immature disobey, mature obey, and mature disobey. The stories were divided into episodes revolving around the home and school. Thirty-two stories were devised with sixteen in Form A and sixteen in Form B. There were four stories in each category for each form.

In order to counterbalance the effect arising from unique characteristics within specific stories the endings of all the obedience stories were changed to disobedience and vise versa. The same situations were therefore used in mature obey and immature disobey stories, and also for the immature obey and mature disobey. Twenty-seven children were administered Form A stories and twenty-seven Form B.

Two large drawing tablets, 9 x 12 inch, with simple figure line illustrations were prepared for each story. Each story was divided into two sequences, one illustrated a rule being given to a child by an adult; the other depicting the child's behavior. Thus, sixteen stories from either Form A or B with the accompanying illustrations were presented for each subject.

Procedure

Two assistant saw the subjects in individual testing session over a period of three days. Before starting the testing, the assistant explained that he would be reading the subject a story involving children his own age and about adults like his mother, his father, and his nursery school teachers. The story situations were deliberately designed around the children's lives with the intent of facilitating close identification between the subject and character in its story. The assistant explained that the stories were about children and what they did after they were told to do something by one of the adults. Each subject was instructed that after the assistant finished reading each story two times he would ask the subject two short questions about the story. Before beginning the testing, five paper dolls were presented, and the assistant told the subject what each of the doll characters were. The dolls were the same type as the figure line illustrations used in the stories. For example, the assistant said, "This doll is the father, this doll is the mother." etc. In each case the assistant asked the subject identify the characters in one of the sotry illustrations to promote close identification of the characters on the part of the child. To help

facilitate the child's understanding, the story illustrations were placed in front of him and the assistant pointed to the characters as the story was being read.

Every child tested was asked to draw a slip of paper, identifying a story, from a container and give it to the assistant. This procedure was used to randomize that order of presentation. This was done for all sixteen items. After the story was read once, the assistant reminded the child to listen closely to the story once again. After the second reading the assistant asked each child probing questions about the stories. The following are examples of the probing questions:

> . . . Carol left the yard and dashed into the street and rescued the baby."
>
> Was that good or was that bad?
> Why was that good/bad?

The assistant inserted either good or bad depending on how the child answered the first question. If a child displayed difficulty answering, the assistant then asked the following probing question:

> "Why do you think Carol did what she did?"

Each response of "good" was recorded with a two; each response of "bad" was recorded with a one. The child's explanation of his judgment of the story characters behavior was recorded verbatim by the assistant. The assistant did not comment on whether the subject made a correct or incorrect choice in answering. The children paid close attention and seemed to consider the stories interesting and enjoyable.

After the testing period was concluded, the assistant escorted the child back to his group and selected another for testing. Following the testing, two judges independently evaluated each response of the subjects. The judges were unaware of the hypotheses of the study during the judging process. A mature judgment was one in which the child could interpret the situation in terms of the definition of maturity, and then make the mature choice irrespective of the adult's command. An immature judgment was one in which the child failed to interpret the situation in terms of social and maturity. The first score (good or bad) will be referred to as choice and the second as explanation.

Results

An analysis of variance was used to determine if there were response differences between the story categories. The model for

this analysis was Y = A(I) + B(IJ) + C(K) + AC(IK) + BC(IJK) + E wherein A represents age, B represents subjects, and C represents stories.

A preliminary analysis was run to determine the effect of form. Each story-type was analyzed separately in this preliminary analysis, and both choices and explanations were evaluated. Of the eight comparisons, only two form differences were significant; choices for mature disobey and choices for mature obey. Because of a lack of general significance and also because form was equally represented within each age, sex, and story group the effect of form was collapsed in the subsequent analyses. Another preliminary analysis found that there was no main effect for sex.

Table 14 presents the analysis of variance summary for the choice measure. The story effect was significant. The means are presented in Table 15.

TABLE 14

Analysis of Variance Summary for Choice Scores

Source	df	MS	F
Age (A)	1	1.60	0.47
Subjects (B)	34	2.12	--
Story type (C)	3	21.72	21.38*
AC	3	.72	.71
BC	102	1.01	--
Error	0	0.00	--
Total	143		

$p < .001$

TABLE 15

MEANS SCORES FOR CHOICES AND EXPLANATIONS FOR THREE AND FOUR YEAR OLD SUBJECTS

	Choices			Explanations		
	Age 3	Age 4	Total	Age 3	Age 4	Total
Mature Disobey	6.05	5.50	5.77	5.83	6.61	6.22
Immature Obey	4.72	4.83	4.77	5.66	6.22	5.94
Immature Disobey	4.66	4.50	4.58	5.50	7.05	6.28
Mature Obey	6.22	6.17	6.19	5.33	7.05	6.19
Total	5.42	5.25	5.33	5.58	6.74	6.16

Inspection of the four means show that the difference was caused by the two immature stories $\bar{X}$'s = 4.77 and 4.58 as opposed to the two mature stories with means of 5.77 and 6.19. A higher score indicates the story category received more ratings of good. Scores could range from 4 - 8. The important finding is that obedience did not produce higher ratings and disobedience did not produce lower ratings at either the age three or four levels. Surprisingly, the three-year-old did not score differently than the four-year-olds on this measure. Analysis for the second measure, explanation, is presented in Table 16. In this analysis only age was significant. The means are presented in Table 15. The four-year-olds scored higher, $\bar{X}$ = 6.74 vs. $\bar{X}$ = 5.58. Inspection of the mean explanation scores for three and four-year-old children indicate that older children more frequently define situations in terms of social-cultural standards (mature) as opposed to compliance to adult commands than do three-year-old children. There was no significant story difference.

TABLE 16

ANALYSIS OF VARIANCE SUMMARY FOR

THE EXPLANATION MEASURE

Source	df	MS	F
Age (A)	1	47.84	4.80*
Subjects (B)	34	9.96	--
Story type (C)	3	0.78	0.50
AC	3	2.95	1.91
BC	102	1.54	--
Error	0	0.00	--
Total	143		

*$p < .05$

Discussion

The age differences and the lack of story differences on the explanation measure may seem to contradict the findings for the choice score, but it becomes understandable when one considers that the explanations require verbal skills and that four-year-old children are more likely to possess the requisite verbal skills than the three-year-old children. The scoring method

which gave a higher number score when an explanation focused on the value of human life, the welfare of others and the concern for property rather than obedience. It is concluded, in this case, that either the three-year-olds could not identify the element or they may not have been able to verbalize the concept whereas the four-year-olds had more sufficient verbal skills. As the three-year-old children did just as well on choice score, these investigators are more inclined to believe that the difference is due to the advanced verbal skills of the four-year-old children.

The main concern of this experiment was to investigate the degree ot which obedience or disobedience in compliance to adult rules will determine pre-kindergarten children ability to make moral judgments. The data shows that prekindergarten children are able to judge an act or situation as good even when it disobeys an adult order. This finding suggests that children are possibly not so adult oriented as Piaget proposes. Moral judgment is said to develop from an immature heteronomy; the cognitive limitations of the child causes him to view rules or commands as being unchangable external forces rather than as somewhat arbitrary and subject to error. This is said to result because of the child's respect for parental authority. The rigidity in the child's thinking is further influenced by egocentrism or the focus only on one's own perspective. According to Piaget young children's choices of right and wrong or good and bad illustrate their concept of the inflexibility of rules. To the child the rule is unchangable, regardless of whether the requirement or circumstances of the situation to which the rule was applied are changed. It is this investigator's conclusion that this is not the case. Instead, after viewing this data, it is suggested that children do realize that it is good to disobey a rule if the violation conforms to what culture defines as being mature. On the other hand, children also judge obedience to rules as bad when the obedience is inconsistent with other social-cultural standards of correctness.

The question is asked: Why do the children in this study respond to the element of maturity and not to obedience and compliance to the rule? As previously proposed, one possible explanation is that perhaps Piaget's theory underestimates the social and more democratic basis of middle-class American parent-child interactions. Piaget's conclusion are usually given as characteristic for all children in all situations. One should consider that Piaget's study involved lower-class children in Geneva, Switzerland early this century. Cultural differences, particularly across time, have changed enough to warrant questioning the generalizability of his findings.

Finding that four-year-old children more frequently than

three-year-old children explained their choice in terms of the situation suggest that the older children are closer to the time when they begin moving toward the higher level of thought processes as proposed by Piaget and Kohlberg (1964). Also, in a study by Magowan and Lee (1970) on the type of stories used in studies of moral development, it was found that the type of stoty, and the characteristics of the subjects, have great bearing upon the research findings. Their study focused on four main variables: Stories depicting familiar versus unfamiliar situations, multiple choice versus open-ended story question, sex of the central figures in the story, and ages and sex of the children participating in the sample. Important factors which may have bearing upon the children's responses were ones such as the linguistic ability or verbal fluency of the child, and the projective sturcture of the situation (whether the child sees the story characters as himself or others, his own age or younger or old). Magowan and Lee concluded that children give more immature responses to stories with unfamiliar as opposed to familiar settings. They found no sex differences. They also suggested that as a child increases in age he will give more mature moral judgments. Their last conclusion was interesting. They suggested that forced-choice instruments should be used wherever possible, instead of the traditional open-ended questions. This was because as the child had to think up responses. This finding, of Magowan and Lee, also seems to be evident in the data reported here if one agrees that the choice score is multiple-choice and the explanation score is openeended.

In summary, it is concluded that pre-school children are able to identify and lable positive act as good even when they do not conform to state adult rules. The surprising ability of children to ignore adult commands is interpreted to mean that all children may not have the unilateral respect for authority that Piaget proposed. Nevertheless, it is possible that the child's judgment may have been influenced by what could be called the general adult or societal values and that his seemingly situational disregard for the one adult in the story was due to his conformity to adults in general. If the latter is the case, then the child is able to use more than one perspective in making a moral judgment, an act which Piaget also states is characteristic only of older children.

THE EFFECTS OF TRAINING ON RECIPROCITY JUDGMENTS IN PREKINDERGARTEN CHILDREN[1]

Research on moral development during the past 15 years has focused primarily on cognitive aspects rather than affective. This cognitive aspect is called moral judgment or moral reasoning. Studies in moral judgment attempt to infer the way the child thinks rather than the way he might act in a given situation. The implicit assumptions of such studies are that moral development is sequential and that cognitive development (judgment) is antecedent to affective development (action). "The man who understands justice is more likely to practice it (Kohlberg, 1970, p. 115)."

Many moral issues face children in a free-enterprise society such as sharing one's possessions, telling the truth, resisting the temptation to take things belonging to others, and obeying rules ofadult authorities (parents, teachers, policemen, clergy, and so on). Selman and Kohlberg (1970) claim that all such moral issues have four basic moral elements in common: internality, relativity, and reciprocity. Using an analogy, the moral elements (such as reciprocity and relativity) are seen as the steel superstructure of a building, while the moral issues (such as telling the truth or sharing possessions) are seen as the brick, doors, and windows. The building can be completed only when the superstructure isproperly developed. Intention is an element of this superstructure dealing with movement from judging acts in terms of their physical consequences to judging them in terms of the motives of the doer. Internality is an element concerned with judgment of the "goodness" or "badness" of an act independent of, rather than on the basis of, sanctions such as verbal approval or physical punishment. Relativity is moral judgment that moves from an absolutistic, rigid, single-perspective view of an act to flexibility based on consideration of other points of view. Reciprocity, perhaps the keystone element in the development of the moral superstructure, is based on movement from exact distributive and retributive equality or justice or fairness (such as "an eye for an eye and a tooth for a tooth") to a concept of fairness and justice based on the other person's needs and point view (such as the Golden Rule). Forgiveness would be characteristic of mature reciprocity.

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[1]Credit is extended to Linda Cropper who assisted at all phases in this experiment. Manuscript has been submitted for review.

Piaget (1932) views movement from one stage of moral judgment to another as a slowly maturing result of the child's social interaction with his peers rather than direct teaching. He suggests that cooperation--the "dignity of the individual and respect for general opinion"-- is a vital part of moral judgment learning. Maier (1965) indicates that the transition is a result of increased social contact combined with more accurate imitation of models in the environment. Berkowitz (1964) states that imitation and modeling are the primary methods through which children gain values and moral judgments.

Several studies have examined the possibility of accelerating movement from one stage of moral judgment to another. Some of these student have dealt specifically with stages suggested by Piaget (e.g., Bandura & McDonald, 1963; Crowley, 1968; Durkin, 1959z, 1959b, 1961; Larm, 1969). Others have examined stages suggested by Kohlberg (e.g., Turiel, 1966).

The moral element of reciprocity, or the concept of fairness and justice, has received little experimental attention in the literature. Reciprocity is defined as a fairness and equality of interaction wherein the participants act upon the gasis of the Golden Rule ("Do unto others as you would have others do unto you"). Selman and Kohlberg (1970) see the child going through stages in his understanding of reciprocity. The child first has no conception of equality, sharing, or taking turns. Next, he shares in obedience to instructions of an authority figure. Thirdly, he perceives reciprocity on the basis of an "eye for an eye." Finally, he progresses to the stage where he is considerate of others as he would like them to be considerate of him.

Piaget (1932) suggests that young children ten to ignore concepts of reciprocity and seek an authority figure in conflict situations. Older children respond in ways that reflect the acceptance of reciprocity. In a series of studies with children divided among grades 2, 5, 8, and 11 and using the definition of reciprocity as a return of identical behavior, Durkin (1959a, 1959b, 1961) found that reciprocity judgments change with age but not as predicted by Piaget. She found that older and younger children tend to seek justice through an authority figure, rather than the older children consistently turning to mature reasoning and mature behavior. Children also had a tendency to favor returning aggressive acts rather than reasoning out a conflict. The aggression returned was to be no more severe than the aggression received.

In an experimental study of the effects of certain modeling conditions on sharing behavior in fourth and fifth graders, Harris (1970) found that children who observed a model share with them tended to share with the model. Those who observed a model share with charity shared in turn with charity. The amount shared, however, was not reciprocal. Those children who observed no sharing showed little or no evidence of sharing when they had the opportunity. Though this study investigates the element of reciprocity in children, it studies reciprocity behavior rather than thinking. However, it supports the claim that modeling effects reciprocity behavior.

The present investigation studied the effects of training on reciprocity judgments in prekindergarten children. There is little experimental research related to his important element of moral judgment, particularly in prekindergarten children. Prekindergarten children appear to be at an early stage of moral judgment development, therefore making changes in judgment relatively easy to detect. Studies indicating that changes in moral judgment occurred after short training periods (Bandura & McDonald, 1963; Crowley, 1968; Larm, 1969; Turiel, 1966) provided the rationale for the hypothesis in this study that prekindergarten children trained to make mature responses to inperseronal conflict situations would make more mature judgments in illustrated story conflict situations than those receiving no training.

Because the evidence indicates that modeling effects moral judgment responses im children (Bandura & McDonald, 1963; Harris, 1970), and discussion and role playing tend to be more effective in changing moral judgments than operant discrimination training (Crowley, 1968; Larm, 1969; Turiel, 1966), the present study predicted that prekindergarten children exposed to discussion and role playing during training would make more mature reciprocity judgments on a story posttest than those exposed to operant discrimination training.

Though inconsistent, the moral judgment literature reveals few significant sex differences. Therefore, this investigation also hypothesized there would be no sex differences on reciprocity judgments of prekindergarten children in a story posttest.

METHOD

Sample

The original sample consisted of 60 children, 31 boys and 29 girls, ranging in age from 38 to 68 months. These children were

enrolled in the Child Development Laboratories at Brigham Young University during the second session of summer school, 1971. This was the total enrollment in the four laboratory groups with the exception of two children who were non verbal children. The subjects were from white, middle-class homes. The 60 children in the sample were randomly assigned to three training groups by sex and laboratory group. Twenty-one Ss did not complete the study resulting in a final sample of 43. The mean age for these children who completed the study was 56.2 months. The mean age of the children in group 1 (45.8 months) was considerable less than that of the other three laboratory groups. The mean age of laboratory group 4 (54.7 months) was nine months older than the mean of laboratory group 1. The mean ages of groups 2 and 3 were 62.4 and 61.7 respectively. Age, therefore, was used as a covariate in the statistical analysis of the data in this study.

Treatments

The treatment consisted of three fifteen-minute training sessions on three consecutive days for each of the experimental and control groups and a fifteen-minute posttest for each individual child four to six days following the last training session. Four trainers (two male and two female graduate students) were instructed in each treatment and randomly assigned to the experimental or control groups so that each trainer conducted at least one training session for each kind of treatment in the study. Each training group received a different trainer for each training session, thus randomizing the effect that any individual trainer had on the children. The trainers were not informed of the study hypotheses until the study was completed.

Treatment A consisted of a series of discussions wherein the children acted out a conflict situation, discussed their feelings about the situation, suggested possible solutions to the conflict, and then re-enacted the situation using a mature response supplied by the trainer to resolve the conflict. Each child in this treatment had an opportunity to act out a role and verbalize the mature response of discussing the problem with the offending child to resolve the conflict. A different conflict situation was used for each of the three training sessions. The first was a child taking a book away from another child; the second, a child pushing another child off the slide; and the third, a child verbally threatening to take away a ball from another child.

Treatment B consisted of operant discrimination training without discussion. Two wood figures, looking vaguely like human figures, were used during these training sessions. The figures had the name of a boy and a girl during the first training session; the names of two boys during the second training session,

and the names of two girls during the third training session. The trainer explained during each training session that these children sometimes had problems getting along together. The trainer then presented to the children in each group in this treatment a conflict situation and a verbal model of a mature way to resolve the conflict. In subsequent conflict situations, each S was asked to indicate what he thought should be done to solve the problem. If he answered with a solution that included trying to resolve the problem with the other children without physical or verbal agression, he received a gold star by his name on a special chart. If he suggested trying to enlist the aid of an adult to help solve the problem, he received a silver star. If the child did not give an answer related to either of these, the trainer went to the next child, ignoring the inappropriate response.

Children in Treatment C, the control group, listened to a popular children's story during the each of the three training sessions. These stories had no relationship to the reciprocity training in Treatment A and B. At the conclusion of each story the trainer saked selectdd recall questions.

Posttest

The posttest consisted of ten illustrated conflict situations. Five stories involved a child being verbally or physically attacked by another child and five stories involved a child having his property taken away or destroyed by another child. The stories included conflict situations familiar to the average prekindergarten child. An example of physical attack would be: "Ann/Roger is playing in the sand when another girl/boy dumps sand on Ann's /Roger's head. What do you think Ann/Roger will do about it? Why?" An example of the property destruction would be: "A girl/ boy teats the pictures out of Margaret's/Bobby;s story book. What do you think Margaret/bobby will do about it? Why?"

Parents of prekindergarten children not in the study rated a list of possible ways of solving the conflict situation in each of the ten stories from the least mature to the most mature. An item analysis was made of these parent ratings to determine the rating scale to be used on child responses in the story posttest. Subject responses to each story were coded according to the results of the parent rating scale, with 12 coded the most mature response and 1 coded the least mature respons' .

During the posttesting a female experimenter selected the children at random from their laboratory groups and brought them to the experimental room. This room is 10' by 15 1/2' with two one-way mirrors. The examiner, an undergraduate student in Child Development, was seated at a small table. She was introduced to the child

by the experimenter. The child sat down at the table with the examiner. The experimenter left, indicating that she would return when the child was through. An observer, also an undergraduate student in Child Development, observed through the one-way mirror and recorded the nonverbal responses of the child during the fifteen-minute testing session. To avoid examiner and observer bias, neither the examiners nor the observers were informed of the hypotheses of the study.

Each child was presented the ten illustrated conflict situations one by one in a random order by the examiner. After the presentation of each situation, the child was asked what the "wronged" child would do and why. Answers were recorded verbatim by the examiner on a response from. Female names were used in each conflict situation when S was female; the names of boys were used when S was male. At the end of the posttest the child was thanked for his help an d given a balloon.

Responses of the children to the story posttest were rated independently from least mature to most mature by two female graduate students in Child Development and Early Childhood Education using the 12-point coding scale. For instance, the response "He/she should wipe it off," to the story about having sand dumped on the child was coded 11, meaning that the child ignored the behavior of the offending child. A response calling for help from a teacher in the conflict situation was coded 10, indicating the child would ask an adult to intervene. These graduate students were unaware of the hypotheses of the study and the training sessions which preceded the posttesting. Interrater reliability was computed using the following formula:

$$\text{Percent of agreement} = \frac{A}{A+D}$$

A = number of agreements

D = number of disagreements

Interrater reliability was .98.

Statistical Analysis

The Modified Abbreviated Doolittle (MAD) analysis o. variance and covariance for unequal cells and unequal numbers of observations was performed by treatment, group, story, and sex to test the hypotheses of this study.

RESULT

Table [17] is an analysis of variance summary by treatment, group, and sex of the scores of the 43 children in the final sample on story posttest.

TABLE 17

Modified Multivariate Doolittle Analysis of Scores on Story Posttest

Source	df	Mean Score	F
Treatments	2	132.8000	17.460*
Groups	3	8.2937	1.182
Group x Treatment	6	50.2140	7.159*
Sex	1	7.5307	.692
Stories	4	13.2950	1.900
Treatment x Sex	2	16.8730	2.406
Property x Physical Stories	1	15.1200	1.130
Treatment x Property x Physical	2	2.4200	.318
Property x Physical x Sex	1	.7051	.065
Treatment x Stories	16	7.6040	1.084
Sex x Stories	8	10.8890	1.550
Error	357	7.0141	

*Significant at .005

There was a significant treatment effect and also treatment by group interaction. The mean scores are presented in Table 18.

TABLE 18

Mean Scores from Parent Rates Scale on Story Posttest
by Treatment, Group and Sex

	Treatment											
	A			B			C			Totals		
Group	M	F	Tot.	M	F	Tot.	M	F	Tot.	M	F	Tot.
1	00.0	7.0	7.0	10.5	11.0	10.6	6.3	7.0	6.6	8.0	7.7	7.8
2	8.5	6.4	7.6	7.5	9.4	8.5	7.6	6.9	7.2	8.0	7.2	7.7
3	8.6	8.2	8.4	8.3	6.9	7.6	5.7	9.1	6.8	7.6	7.6	7.6
4	6.2	6.0	6.1	0.0	11.4	11.4	7.0	6.3	6.6	6.6	7.1	6.9
Totals	7.7	6.9	7.3	8.7	9.7	9.4	6.6	7.2	6.9	7.5	7.4	7.

Groups 1, 2, 3, and 4 performed relatively alike on the posttest for the control groups, but groups 2 and 3 in Treatment B scored more than Groups 1 and 4. Apparently Treatment B was more effective for groups 1 and 4. Treatment B had a mean score of 9.4, but Treatment A had a mean of 7.3, and the control treatment a mean of 6.9, indicating that the main effect for treatment was due to Treatment B.

The analysis of sex differences revealed no differences between the sexes on the story posttest.

DISCUSSION

This study supported the hypothesis that a short training period related to appropriate behavior in child conflict situations can increase the level of cognitive development inferred from moral reasoning in prekindergarten children when responding to illustrated story conflict situations. However, it did not support the hypothesis that role playing and discussion training would be more effective than operant discrimination training; instead operant discrimination training seemed to account for the response differences in this study. This difference might be explained by a careful analysis of the task required of each child on the posttest and the relationships of the two types of training to this posttest task.

The posttest task required the child to provide verbal solution to each of several conflict situations not previously presented during training. The solution was a particular rule or principle such as, "Try to resolve the difference with the other child," or "Walk away from or ignore the other child" (stated in general adult terms). For instance, if a child gives this solution to the story conflict of one child having his tricycle taken from him by another, "He'll tell Don he's angry and to wait his turn," this is a specific example of the rule, "try to resolve the difference with the other child." If he says, "He'll walk away and get another trike." he is giving an instance of the rule, "Walk away from or ignore the other child." If rule using is the task to be performed, instruction (training) should be designed to help the child use the appropriate rule or rules with appropriate instances. The role playing and discussion training (Treatment A) in this study allowed the children to role play one specific rule (that judged most mature) related to three specific situations only. In contrast, the operant discrimination training (Treatment B) allowed the children to respond to 21 different story conflict situations using the same rule. If the child is presented similar but not identical

situations in a posttest, he is being required to transfer a tule to a new but similar situation. It is reasonable to expect children to make this transfer more effectively if they have experienced more instances related to that task during training. This might explain the difference between the role-playing-discussion and the operant discrimination training groups in this study.

An examination of the treatment means (Table .) in this study revealed that none of the groups in the study responded on the posttest with judgments that could be classified as highly mature in story conflict situations. On a scale of 0 to 12, a mean of 12 would indicate highly mature responses. Yet in this study, Treatment A (role playing and discussion) had a mean of 7.3, Treatment B (operant discrimination) a mean of 9.4, and Treatment C (the control group) a mean of 6.9 on the 0 - 12 scale. An examination of the individual responses of the children in the study revealed most responses falling in the following three categories:

Category 2: Comments on "goodness" or "badness" of the act.

(This is a response irrelevant to the soluation of a given conflict.)

Category 5: Revenges himself/herself against the other child.

Category 11 (considered a mature response): Walks away from or ignores the other child.

Therefore, a mean score of 9.4 does not necessarily indicate that the child (or the group as a whole) ususally responds with the rule in Category 9 (asks an adult to punish the other child.) It could mean that he has a sprinkling of responses in both Category 5 and 11. It, therefore, becomes apparent that in future to provide more information about the nature of specific responses to story conflict situations.

In this study coding was done using response sheets on which examiners and observers had written the exact verbal responses of each child to the posttest stories. The investigators who heard the children respond during testing agreed that hearing the child's voice and reading the printed word can produce very different perceptions of the same thing. For instance, in a story about a child being blocked by another while riding his tricycle, the S is asked, "What will (the "wronged" child) do?" and replies, "He'll

run over him." On the written response sheet such a response would be classified in Category 5 (Revenges himself/herself against the other child.) However, the tone of voice used by the child sounded very matter of fact and certainly not filled with revenge. The response to a story of a child being pushed down a slide by another might be, "Fall down and cut his head open." In this case the written response was coded 5, but the sound of the child's voice leads one to wonder who S was talking about -- the child being pushed or the child doing the pushing. Even the written response could lead to the same query. It thus becomes clear that voice inflection may be an important element in determining a child's level of judgment, and that verbal responses from prekindergarten children are often very difficult to interpret because the words of such young children tend to be far richer (general) in mearning than those of adults.

During the posttest each subject was asked not only what the wronged child would do in each case, but also the question "Why?" Most replies to the why questions were, "Because." Therefore, the "Why" answers could not be used in the analysis of data in this study. Such a question is probably a cause-and-effect concept that is beyond the experience level of the children in this study. If they do understand the concept they don't have the necessary language skill to appropriately express their understanding. This problem of interpreting what the prekindergarten child means when he verbalizes may be one reason why so few studies of moral reasoning have been done with prekindergarten children. Perhaps this is one reason why Selman and Kohlberg (1970) have suggested a Stage 0 or a moral orientation during these earliest years of life. Valid evaluation of a child's moral reasoning ability is highly dependent on his verbal ability.

Gagne (1970) and Merrill (1971) have suggested a general sequence of cumulative learning that holds promise for the study of moral reasoning in young children. They, like Kohlberg and Piaget, have postulated invariant sequences. However, they have defined each stage and the conditions of each in observable terms making it possible for the researcher more clearly define his dependent and independent variables. A refinement of this sequence in the cognitive domain is suggested by Merrill and Boutwell (1972).

Inasmuch as investigations of moral reasoning deal with the cognitive domain, it might be advisable for those interested in such research to carefully examine the general sequences of cumulative learning. Merrill and Boutwell (1972) suggest that all cognitive behavior can be classified in four categories: discriminated recall, classification, rule using, and higher rule

using. Discriminated recall means the individual, when presented with any given object, symbol, or even he has experienced before can provide the appropriate symbol for it or indicate the associated object, symbol, or event. For example, the child can point to his dog and say, "Spot" (object-to-symbol) or pick out the letters of the alphabet as they are named by his mother (symbol-to-object). This is a memory process dealing with one-to-one relationships. However, complex cognitive behavior, consisting of the next three categories in the cumulative learning sequence, is dependent on the child's ability to transfer what he has learned to new instances not experienced before. Classification means the child can indicate the class membership of something he has not previously encountered because of common attributes related to past experience. For example, a child looks at a dog he has never seen before and says, "Dog," because the dog has characteristics similar to other dogs he has seen before. After hearing a pair of incidents he has never heard before about children, he is asked to picked out the incident about the child who was "naughty" or the child who did the "right" thing. If he has had adequate past experience with incidents related to the concepts "naughty" and "good" the child can transfer his learning to a new instances." Rule using occurs when the child can demonstrate he understands the relationship between two or more concepts when presented a situation not encountered before. In this study children were presented illustrated stories during the posttesting showing conflict situations between children. These stories had not been encountered in previous training. If children could transfer from their previous training or past experience the general rule, "Try to resolve the difference with the other child," to these new situations they were demonstrating the desired rule-using behavior. But rule using is not possible until the child can first demonstrate understanding of the concepts that comprise the rule. With appropriate rule-using behavior the child can then move to higher rule using where two or more rules are used to solve a previously unencountered problem. For example, if a child has demonstrated ability to use alternative rules in a conflict situation, he might come up with a strategy that says, "First, try to resolve the difference with the other child. If this doesn't work, then ask an adult to intervene." Of course, children would not say the rules in these words, but their cognitive behavior would indicate whether or not they were operating in terms of this sequence for learning conservation tasks, though he labels the categories differently.

If moral reasoning is a function of this four-step sequence of cumulative learning, it becomes important to identify the task we wish the child to perform. This task can be classified as one of the four cognitive categories. Once the desired task is

identified and classified, instructional activities can be planned to help the child achieve the task. These activities become the independent variables and the child's responses to the task become the dependent variables. Each task category probably requires a different set of instructional activities. That is, learning activities to help children develop classification behaviors probably should be different from those to teach rule using behavior. Vance (1972) uses this idea in the preparation of learning activities for prekindergarten childrne.

At the present time investigations of moral reasoning in children are difficult to compare because of a lack of cohesive theory to pull it all together. The "stage" theories may be useful descriptions of cognitive processes, but they are not yet stated in terms specific enough for two provide comparable results. Stage theories need to be stated in terms of specific observable independent and dependent variables. Then experimental research with children of different ages, sex, and socioeconomic and ethnic backgrounds can begin to build a tested theory of the development of moral judgment or reasoning.

PARENTAL ATTITUDES AS PREDICTORS OF CHILDREN'S MORAL JUDGMENTS[1]

In recent years, there has been an interest in moral reasoning and development in children. Most of the research in this area has been stimulated by Jean Piaget and his book, The Moral Judgment of the Child (1932). Kohlberg (1964), for the most part, found evidence supporting Piaget's major contentions. They both agree that moral reasoning is developed over time and is age specific. Because the level of moral judgment in a child corresponds with his particular age, Piaget and Kohlberg both indicate that more mature moral judgments cannot be made without accompanying natural changes of thought organization or thought processes.

The findings of both Caruso (1943) in Europe and of Lerner (1937) in the United States have been cited as evidence in support of the universality of Piaget's developmental sequence of moral reasoning. Both Strauss (1954) and Urgel-Semin (1952) found evidence supporting Piaget's findings that a change of content and definition accompanied a child's judgments as he advanced from stage to stage.

However, the theory of sequential development has been questioned. One of the first studies to consider environmental influences was that done by Harrower (1934). He found that children from the poorer classes possessed a marked similarity in their moral judgments. But Harrower also found distinct differences among children in the same age category but who were from the middle classes. More recently, the studies by Bandura and McDonald (1963) have shown the influence of social reinforcement and modeling by adults and the influence it has in modifying children's moral judgments. Bandura and McDonald (1963), Turiel (1966), and Crowley (1968), to list a few, have each provided evidence which indicates the importance of the role that environmental and social learning factors play in the development of moral reasoning ability.

With this emphasis on environmental and social influences, one might be led to inquire about the role parents play or the effect they have on the cognitive development of their children's moral judgments. Freud (1930) certainly builds a strong case for the role parents play, both directly and indirectly, in developing a sense of "morality" or conscience within their children. It would seem, however, that this sense of morality would vary according to the different attitudes toward child rearing that each set of parents

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[1]Credit is extended to Dave Skoog who participate at all phases in this experiment.

might possess. To the extent that behavior is reflected in attitudes, one might then be able to demonstrate a considerable influence between parental attitudes toward child rearing and the effect they have on the moral reasoning of children.

The prevailing trend of research is moving away from the study of cognitive processes and emphasis is being placed on the environmental, behavioral, and social factors. Since most of the research is beginning to consider the importance of environmental and social factors, one might be led to inquire as to the role parents play in shaping children's moral judgments. More specifically one might ask, what role do parental attitudes play. It is an area of study that has been largely neglected. Considering this fact, it was the purpose of this investigation to focus on parental attitudes and attempt to determine the relationship they have with children's moral judgments.

The literature is relatively void of research in this area. MacRae (1954) initiated a study examining the effects of different types of parental authority on children's moral judgments. MacRae used four of Piaget's indices of moral judgment and found no significant association with his measures of parental authority. However, a "violation of norms" index of moral judgment showed significant correlations at the 5 per cent level with the "extent of discipline" index ($r = -.13$) and the "internalization" index ($r = -.16$).

A review of the literature indicates one study that has been directly concerned with parental attitudes and children's moral judgments (Johnson, 1962). Even in this study, parental attitudes took a back seat to Johnson's primary purpose which was to examine the relationship within and between Piaget's five areas of moral judgment. However, correlations were obtained between parental attitudes for two of the five dimensions--immanent justice and communicable responsibility. But as the same time, Johnson concluded that none of these variables were closely or consistently related to moral judgment or that they were able to account for the major portion of variance. No correlations were found between parental attitudes and the other three dimensions of moral judgment which included moral realism, efficacy of severe punishment, and retribution versus restitution.

Possibly a couple of evaluative comments on Johnson's investigation would be in order. First of all, Johnson used an older age group than Piaget's concepts and dimensions of moral judgments were designed for. He utilized children in grades five through eleven where ages range from ten through sixteen. Piaget's dimensions and concepts were intended for those children between the ages of six and twelve, since it was at approximately twelve years of age, or even less, that the developmental changes in moral judgments occur. In this case, it would be necessary to develop entirely different conceptual dimensions by which to measure moral judgment. Perhaps more significant correlations

could be found if subjects' ages more closely corresponded to that age for which Piaget's concepts and dimensions were designed.

Additionally, one further criticism of Johnson's study could be made concerning the device he used to measure parental attitudes. Pumroy (1966) has pointed out one difficulty with the Schoben scale, which Johnson used, and that is that the response set of subjects is not controlled. Additionally, one can observe from the three scales employed on the Schoben test which measures degree of ignoringness, possessiveness, and dominativeness, that the test is somewhat one-sided in what it attempts to measure. It is apparent that all three of the scales deal only with negative dimensions of the parents.

In summary, other than Johnson's investigation, the literature is void of any research that specifically deals with inquiries into the area of parental attitudes as they relate to the maturity of moral judgments in the child. It has already been mentioned that Johnson's findings were not that conclusive and the shortcomings of his study were pointed out. It is apparent that research in the area of parental attitudes is definitely needed since so much of the research in the area of moral judgments has neglected this important variable.

Centering attention on the area of parental practices and attitudes, it becomes readily apparent that numerous variables enter into the situation. Hoffman (1964) pointes out that factor analysis can help account for multiple variables by determining a minimum number of orthogonal dimensions which can account for empirical correlations among the variables. In examining the consequences of parental discipline, Hoffman focuses on two main dimensions: love-oriented versus power-assertive techniques and restrictive versus permissive approaches to discipline. Lover-oriented techniques involve both positive and negative methods. Positive methods would include the use of praise and reasoning, for example. Negative methods are those which threaten the love relationship, such as love withdrawal and showing disappointment. Power-assertive techniques include physical punishment, yelling, shouting, forceful commands, and verbal threats. Restrictive versus permissive approaches to discipline remain mostly self-explanatory.

In summarizing the findings, Hoffman concludes that approaches to discipline which utilize love-oriented methods are more likely correlated with internalized reactions to transgression (feelings of guilt, self-responsibility, confessions) and with non-agressive or cooperative social reltaions. Power-asserting techniques tend to correlate with externalized reactions to transgression (fear of punishment, projected hostility) and with non-cooperative aggressive behavior. In examining restrictiveness versus permissiveness, it

was found that restrictiveness usually led to well socialized behavior, but in addition it also developed dependency, fearfulness, submissiveness, a dulling of intellectual striving and exhibited hostility. Permissiveness was found to be associated with agressive and assertive behaviors, intellectual striving, and outgoing social behaviors.

One could assume that Hoffman's findings could also have implications for moral judgment. For instance , since permissiveness fosters intellectual striving, perhaps this type of behavior or attitude might also foster mature moral judgments. Likewise, since restrictiveness was found to develop dependency and a general dulling of intellectual striving, then one might conclude that it would effect immature moral judgments. In a like manner of reasoning, because love-oriented techniques are associated with non-agressive and cooperative social relations one could expect this type of parental behavior to be superior to power-assertive techniques in stimulating mature moral judgments.

Althouhg it would be difficult to individually obtain a behavioral measure of parental child-rearing practices for this study, it was possible and more feasible to measure parental attitudes. Accordingly, the Maryland Parental Attitude Survey (M.P.A.S.) was used. The M.P.A.S. controls for social desirability and is deemed a better measuring device than the Shoben Scale which Johnson used in his study. The present instrument is broken down into four scales: disciplinarian, indulgent, protective and rejecting. Pumroy (1966) has found that the reliability of the four scales varies from .622 to .843 on split-half and testerest measurements. Although the validity of such an instrument is difficult to measure, the face vaildity is attested to by the nature in which each item was originally selected. (The entire pool of items was given to a group of nine psychologists with instructions to categorize each item according to the type of parent the item represented. If six of the nine psychologists agreed as to which category the item belonged, it was retained; if not, the item was rejected.)

The second problem was obtaining measures of children's moral judgments. This investigation relied on the results from four related but independent experiments for data in this area. The basic problem for each of these separate experiments was to identify children who make immature moral judgments and attempt through a training program to teach these children to make more mature moral judgments. The concern of this investigation was to utilize the moral judgment scores of those subjects who were identified in these four experiments as exhibiting either mature moral judgements or immature moral judgments. Responses of the children were then examined in relation to the attitudes of their parents in hopes of finding some type of consistent relationship.

In order for the reader to obtain a clearer understanding of these experiments, and how they measured moral judgment, a short explanation will follow.

Two measures centered around one of Kohlberg's developmental dimensions are identified as follows:

1. Use of punishment as restitution and reform. Young children advocate severe punishment for wrong-doing, while older children favor milder forms to be used in reforming the individual.

2. Immanent justice. Young children view accidents happening after a wrong-doing as the will of God or as being "immanent justice." Older children do not confuse natural misfortunes with punishment.

Each of the above areas was utilized separately as the dimensions around which an attempt was made to train children who had been identified as immature in their moral judgments to make more mature moral judgments. Those children who made immature moral judgements were identified in a pre-test in each of these experiments.

3. Independence of sanctions. Young children tend to view an act as bad if it is punished, where older children are able to judge the act apart from the punishment or rewards administered.

4. Kohlberg's moral judgment. This dimension includes a combination of moral issues including honesty, reasons for rules and obedience to rules.

Each of the above areas was also utilized as the dimension around which child was identified according to the relative maturity of his responses. The experiments used basically the same methodology and procedures.

The method and procedure of the fourth experiment differed slightly from the others. First of all, the dimension of moral judgment tested was of the type Kohlberg used in previous studies and included a combination of moral issues including honesty, reasons for rules and obedience to rules. (This dimension will be referred to as Kohlberg's Moral Judgmet- dimension for purposes of the present investigation and will henceforth be abbreviated (K.M.J.) The stories used had been conceived by Kohlberg for use in this particular study. In addition, they were also scored by Kohlberg. Since this experiment was conducted at approximately the same time as the present investigation, only the pretest scores are used.

The scores collected from the above experiments were then to be correlated with data obtained from administration of the M.P.A.S. to the parents of the subjects. Drawing on Hoffman's (1964) study on parental discipline, it seemed possible to relate his findings in a general wasy to the dimensions of parental attitudes as measured by the M.P.A.S. Since Hoffman (1964) found that premissiveness usually led to outgoing social behavior (implying a sense of social

awareness) and intellectual striving, and inasmuch as this could be related to the Indulgent scale of the M.P.A.S., then it was predicted that those who scored high on the Indulgent scale would have children who exhibit a higher degree of maturity in moral judgments. Likewise, children whose parents scored high on the Disciplinarian scale, since Pumroy (1966) found a negative relationship between the Indulgent and Disciplinarian scale, would be predicted to exhibit a lesser degree of maturity in moral judgments. Considering the Protective and Rejecting scales of the M.P.A.S., which are also negatively correlated with each other, it was possible to make further predictions. In as much as characteristics which make up the Protective scale are analagous to Hoffman's (1964) "love-oriented techniques" of discipline, it was predicted that parents who score high in this category would have children exhibiting a higher degree of moral judgment. This prediction followed from the fact that since love-oriented techniques are correlated with cooperative social relations in children, and in that this could be said to diminish the amount of egocentricity in a child,which Piaget (1932) contends is an important variable in moral judgments, then it would tend to foster maturity in moral judgments. Finally, it was predicted that parents who score high on the Rejecting scale would also have children who score low on maturity of moral judgments. In addition, it was predicted that by relying on the above reasoning, i.e., choosing children whose parents scored highest on the Indulgent and Protective scales, one could also make predictions as to which children in the immature group would gain the most from the training procedures in each experiment that was designed to teach mature moral judgments.

After having already initiated the investigation into the relationship between parental attitudes and children's moral judgments, a fortuitous discovery presented itself. It was learned that all of the subjects in the present study had been rated on child behavior by their teachers. The behavior ratings and scales as developed by Rollins (1971) included four categories: (1) Friendliness; (2) Conformity; (3) Independence; and (4) Agression.

Although it was decided not to make child behavior a primary concern of this study, it seemed like an opportune occasion to include these ratings and at the same time attempt to ascertain the relationship between child behavior and moral judgment.

A brief review of the literature reveals that this area of concern has also promoted little research. Hoffman (1971) summarizes the relevant studies and concludes that none have established a relationship between moral judgments and child behavior. On this basis, and since child behavior was only a corollary concern, no hypothesis or predictors were made.

METHOD AND PROCEDURES

Subjects

The subjects were four and five year old children attending the Brigham Young Human Development Laboratory (N = 91). In addition, each of the children's parents served as subjects in this investigation (N = 182). Subjects were white, predominantly Mormon, and middle-class.

Materials

The Maryland Parental Attitude Survey (M.P.A.S.). Scores on parental attitudes were obtained by having each parent complete the M.P.A.S. This instrument measures parental attitudes toward child rearing. Included are one hundred pairs of statements.

An example of a question from the M.P.A.S. follows:

A. Parents should watch their children all the time to keep them from getting hurt.

B. Children who always obey grow up to be the best adults.

The parent was requested to choose the one statement (A or B) which least represented his attitude. Responses when scored fell into four categories: (1) Disciplinarian; (2) Indulgent; (3) Protective; and (4) Rejecting. Four scores each corresponding to the four respective categories were obtained for each parent.

EAch item of the M.P.A.S. is paired with another item which represents a different type of parent. Social desirability is controlled for and was built into the questionnaire when originally constructed. This was accomplished by pairing items which had the same number of responses falling into each category (Pumroy, 1966).

Pumroy reports that the reliability of the test for the four scales varies from .622 to .843 (1966, p. 77). The face validity was substantiated by having a group of nine psychologists choose the original items for the questionnaire. If six of the nine agreed on the category of each item, the item was retained, otherwise it was disgarded.

Moral Judgment Scores. Scores on punishment were obtained for 25 subjects in the punishment investigation. Scores on immanent justice were obtained for 26 subjects from immanent justice investigation. Both the punishment and immanent justice scores included those from

a pre-, post-, and second post-test. In each experiment, pre-test scores were obtained from responses to stories modeled after those Piaget used. Posttest scores were derived from an alternate set of stories as were those for the second posttest. In addition, for the immanent justice investigation, both related and unrelated scores were obtained for immanent justice and naturalistic response. These scores coincided with the related and unrelated consequences attached to each story.

Scores on independence of sanctions were obtained for 25 subjects from the independence of sanctions experiment. The scores were obtained from responses to a set of ten stories which were again modeled after those of Piaget. An alternate set of stories was used for the post-test.

Pretest scores on Kohlberg's Moral Judgment dimension were obtained for 40 subjects. These scores were derived differently than in the other three experiments. Kohlberg personally rated the responses to a set of four stories for each subject as being either mature, in whice case a score of 1 was assigned, or as being immature, in which case a score of 0 was assigned. The stories were developed by Kohlberg.

Reliability for all of the above scores for the most part has not been established. Inter-rater reliability was obtained for the punishment, immanent justice, and independence of sanction scores by having responses judged by two raters. If the two raters did not agree on the classification of a response, as to whether it was mature or immature, the final decision was left to a third rater.

Child Behavior. Scores were obtained from teachers' ratings on child behavior for all subjects.

Child behavior rating scales as devised by Rollins (1971) were used. Twenty-one items, including ten traits selected from the California Inventory of Child Behavior and eleven traits selected from the Fels Child Behavior Rating Scales, made up the entire scale. The 21 items were selected by Rollins to conform to Schaefer's four types of social response (1961, p. 140).

After ratings had been made on all subjects, factor analysis was performed resulting in the emergence of four factors which accounted for 68 per cent of the variance for the initial 21 items. The four factors were designated as follows: (1) Friendliness; (2) Conformity; (3) Independence; and (4) Agression. A factor loading of .50 was used as the criterion for inclusion of an item on a factor. All 21 items were included in one of the factors.

The value of one was assigned to each item. Factor scores were obtained by summing the responses on the items included in the factor at criterion level.

Other than internal consistency established through factor analysis, the reliability of this instrument has not been demonstrated. Neither has any inter-rater reliability been established.

Procedure

As part of the normal intake procedure at Brigham Young Human Development Laboratory, the M.P.A.S. was administered to both parents of all children. Four related but independent experiments provided punishment, immanent justice, independence of sanctions, and K.M.J. scores for each child. Child behavior ratings were obtained from the subjects' teachers at the Brigham Young Human Development Laboratory.

In summary, the following scores were collected:

A. Moral judgment scores of the children.

   1. The pretest scores of subjects in the punishment, immanent justice, K.M.J., and independence of sanctions experiments.

   2. The posttest scores for the subjects in the punishment, independence of sanctions, and immanent justice experiments.

   3. The second posttest scores for subjects in the punishment and immanent justice experiments.

B. Child behavior ratings.

C. M.P.A.S. Scores of the parents.

   1. Fathers' scores

   2. Mothers' scores.

A final comment is in order concerning the question of the representativeness of a predominantly Mormon sample. Regarding this, it is suggested that parental types and attitudes are basically universal in our culture. Where they are not, one could still apply the results of this study to the general population in that it may identify certain variables which do affect moral judgments.

RESULTS

Correlations were computed between M.P.A.S. scores and children's moral judgment scores for immanent justice and naturalistic response, punishment, and independence of sanction scores. Table 19 gives a breakdown of the total number of correlations computed for each dimension of moral judgment plus the number found significant. No significant correlations were found for punishment scores; in fact, none even came close to approaching the .05 level of significance. Out of sixteen correlations computed for the independence of sanction scores, only two were found significant. Mother-indulgent was correlated with the pretest score; and mother-disciplinarian was correlated with the computed difference score between the pretest and posttest situation ($r = .43$, $p. < .05$ for both). A list of correlations for punishment and independence of sanction scores are given in the Appendix. For immanent justice and naturalistic response scores, only eleven of the 160 correlations computed were found significant.

Table 19

Number of Correlations Computed Between Moral Judgment Scores and M.P.A.S. for Each Experiment

Scores	Number of Correl. Computed	Number of Correl. Significant*
Immanent Justice and Naturalistic Response	160	11
Punishment	40	0
Independence of Sanction	24	2
Total	224	13

*$p. < .05$

Correlations between the original immanent justice and naturalistic response scores and M.P.A.S. scores are reported in Table . It is apparent that the most frequently correlated item of the M.P.A.S. with moral judgment was the mother-rejecting dimension. Out of a total of eight significant correlations, seven of these are associated with mother-rejecting. It is further noted that correlations with the immanent justice scores are positively correlated with mother-rejecting, and that correlations with the naturalistic scores are negatively correlated with mother-rejecting. Additionally, all of the correlations that are significant in Table 20 are associated with the mother.

Correlations with the computed difference scores of the immanent justice data are included in the Appendix. There were three significant correlations with these difference scores. It is concluded that these could have occurred by chance alone.

Neither the punishment scores, which yielded no significant correlations, nor the independence of sanction scores, which provided only two significant correlations, supports the belief that there is a relationship between parental attitudes and children's moral reasoning ability. Considering the total number of correlations computed, one should also be cautioned about drawing conclusions regarding the significant relationship between immanent justice and parental attitudes. However, with these limitations in mind and at the same time rejecting any claim of conclusive findings, the data so far might tend to suggest the following: (1) mothers play a significant role in development of their children's moral judgments; (2) rejecting mothers have children who score high on immanent justice responses and who consequently also score low on naturalistic responses.

In considering the relationship between K.M.J. scores and parental attitudes, eight 2 x 2 analysis of variance were run. Factor A represented the moral judgment score of 1 or 0, and factor B represented the child's sex. The results indicate no significant main effects or interaction with any of the eight separate categories of the M.P.A.S. The analysis of variance with parental attitudes can be found in the Appendix.

In addition to the correlations, a multiple-regression analysis was also computed for each of the other moral judgment dimensions with M.P.A.S. variables as predictors. No significant regression equations could be found for the five punishment scores. The independence of sanctions scores yielded mother-indulgent as the best single predictor and also as the only significant regression equation (R^2 = .18, p. .05).

The immanent justice and naturalistic response scores yielded a series of significant regression equations that seem to be supportive of the earlier relationship established by correlations. Table 21 lists those multiple predictors for each moral judgment score which were

Table 20

Summary Table of Correlations for Immanent Justice and Naturalistic Responses with M.P.A.S. Scores

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
MDISC	-.25	-.35	-.01	-.15	-.32	-.06	.04	.16	.16	.21	.26	.08
MINDUL	-.03	-.17	-.20	-.33	-.20	-.27	.35	.11	.12	.21	.31	.23
MPROT	.07	.27	-.09	.04	-.23	-.43*	.18	-.18	.84	-.12	.09	.33
MREJ	.43*	.25	.27	.40*	.58**	.57**	-.37*	-.14	-.29	-.32	-.52**	-.52**
FDISC	-.07	-.12	.19	-.11	.08	.13	.17	.09	-.22	.00	.01	-.10
FINDUL	.10	.16	.01	.03	.04	-.18	-.23	-.34	.04	.04	-.03	.20
FPROT	-.08	-.04	-.34	-.08	-.13	-.06	-.05	.09	.30	.00	-.06	-.12
FREJ	-.09	-.03	.13	.19	.05	.17	-.05	.15	-.11	-.05	.06	.00

*Prob. $\leq$.05 **Prob. $\leq$.01

MDISC = Mother-disciplinarian
MINDUL = Mother-indulgent
MPROT = Mother-protecting
MREJ = Mother-rejecting
FDISC = Father-disciplinarian
FINDUL = Father-indulgent
FPROT = Father-protecting
FREJ = Father-rejecting

Table 20 (continued)

Immanent Justice: Y1-Y6

Y1 = Pre-test, related
Y2 = Pre-test, unrelated

Y3 = Post-test, related
Y4 = Post-test, unrelated

Y5 = 2nd Post-test, related
Y6 = 2nd Post-test, unrelated

Naturalistic: Y7-Y12

Y7 = Pre-test, related
Y8 = Pre-test, unrelated

Y9 = Post-test, related
Y10 = Post-test, unrelated

Y11 = 2nd Post-test, related
Y12 = 2nd Post-test, unrelated

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Table 21

Summary of Multiple-Regression for Immanent Justice and Naturalistic Response on M.P.A.S. Variables

Dependent Variable	Predictor	Probability Level	Prop. Var. = R-squared
Y1	MREJ	.02	.18
Y2	MPROT	.00	.34
	MREJ	.00	
Y3		NS	
Y4	MPROT	.05	.29
	MREJ	.00	
Y5	MREJ	.00	.33
Y6	MDISC	.11	.39
Y7		NS	
Y8		NS	
Y9		NS	
Y10	MPROT	.03	.25
	MREJ	.01	
Y11	MPROT	.12	.34
	MREJ	.00	
Y12	MREJ	.00	
	MDISC	.09	.36
	MINDUL	.24	

MREJ = Mother-rejecting
MPROT = Mother-protecting
MDISC = Mother-disciplinarian
MINDUL = Mother-indulgence

Table 22

Summary of Multiple-Regression of Computed Difference Scores for Immanent Justice and Naturalistic Response on M.P.A.S. Variables

Dependent Variable	Predictor	Probability Level	Prop. Var. = R-squared
Y13		NS	
Y14		NS	
Y15		NS	
Y16	MDISC	.05	
	FINDUL	.166	.35
	MPROT	.01	
Y17	FPROT	.02	
	MINDUL	.19	.32
	FINDUL	.02	
Y18		NS	
Y19		NS	
Y20	FINDUL	.03	.25
	MPROT	.11	

MDISC = Mother-disciplinarian
FINDUL = Father-indulgence
MPROT = Mother-protecting
FPROT = Father-protecting
MINDUL = Mother-indulgence

Immanent Justice:
Y13 = Y1-Y3
Y14 = Y1-Y5
Y15 = Y2-Y4
Y16 = Y2-Y6

Naturalistic Response:
Y17 = Y7-Y9
Y18 = Y7-Y11
Y19 = Y8-Y10
Y20 = Y8-Y12

found significant at the .05 level. Since each regression problem had the potential of generating a number of variables as predictors, it was deemed necessary to limit the number of predictor variables presented in Table to those accounting for the most variance with the least number of variables. In terms of meaningfulness and parismony this was accomplished by including only those varibles which accounted for an additional 5 percent of the variance.

The data in Table 22 reveals that each equation contained mother-rejecting. It is also noted that mother-rejecting has the most significant probability in each equation. This fact, plus the predominance of the mother in these equations, would tend to support the earlier suppositions made concerning the suggested influence of the mother on moral judgments. The most frequent variables occurring together are mother-rejecting and mother-protecting. This fact may at first appear somewhat incongruent. However, in the Appendix there is a list of intercorrelations between the M.P.A.S. variables and provides an explanation. A look at this table shows that mother-rejecting is negatively correlated with mother-protecting ($r = -.59$, $p. < .01$). As such, the equation is merely reflecting the fact that a high score on one variable implies a low score on the other. Thus, in such a relationship a high score on mother-rejecting and a low score on mother-protecting predict a high score on immanent justice.

Of the eight computed difference scores on immanent justice and naturalistic responses (Y13 - Y20), three regression equations were significant. Table lists the predictor variables for the difference scores. The fact that only three regression equations were significant, plus the fact that there was a relative lack of correlation for the computed difference scores, makes meaningful interpretation of these predictors difficult. For the first time however, one may note that the father comes into focus as well as the mother. Both indulgent and protecting categories of the M.P.A.S. are the most frequently occuring predictor variables and are seen in association with both parents. Essentially then, this is suggesting that fathers and mothers who scored high on the indulgent and protecting scales have children who are most able to benefit from training that is intended to teach a child to make more mature moral judgments.

As this investigation progressed, it became possible to obtain child behavior scores based on teachers' ratings of the subjects in this study. The child behavior ratings fell into four categories; agression, independence, friendliness, and conformity. Statistical analysis was performed on these scores to determine the relationship between child behavior and moral judgment. Correlations were computed between child behavior scores and moral judgment scores from the immanent justice and naturalistic response, the punishment, and also the independence

of sanction dimensions. Analysis of variance was again computed for the K.M.J. scores, utilizing a 2 x 2 desgin but substituting child behavior scores for M.P.A.S. scores.

The results, which are in the Appendix, indicated that the punishment and independence of sanction scores were relatively void of significant correlation with child behavior scores. Out of a possible total of forty-eight correlations, immanent justice yielded one significant correlation with friendliness and two with aggression. There were no significant correlations for naturalistic response. Analysis of variance of K.M.J. scores provided a main effect for sex of the child with aggression, and an interaction of sex and moral judgment with friendliness. With the exception of the K.M.J. scores, the relationship between moral judgment and child behavior followed the same trend as did moral jdugment with parental attitudes, i.e., the most significant relationship was with the immanent justice and naturalistic response data with no meaningful relationship with the punishment and independence of sanction scores. Additionally, those correlations that were significant were mostly low. They accounted for a very small proportion of the variance, and established no consistent trend.

Once again then, results here were lacking and since child behavior was not the initial concern of this investigation, discussion will be limited.

Sex and age were statistically controlled throughout this investigation, and in no case were either found to be a significant intervening variable

DISCUSSION

The results of this investigation have produced few conclusive findings concerning the relationship between parental attitudes and children's moral judgments. Reviewing briefly, it was found that multiregression and correlational analysis on punishment scores provided no significant findings in relation to parental attitudes. The analysis of variance performed on K.M.J. scores with each of the separate M.P.A.S. variables revealed no significant F values. Although two correlations and one predictor variable were found significant for the independence of sanction scores, it was pointed out that these do not lead to a meaningful interpretation due to the relative lack of any other significant correlations or established trends along this dimension. Of the four dimensions of moral judgment examined, only one, the immanent justice and naturalistic response dimension indicated a significant and consistent relationship with M.P.A.S. variables.

Piaget (1948), Kohlberg (1964), and others have defined immanent justice as an immature response. The positive correlations of mother-rejecting with immanent justice scores, and the negative correlations of mother-rejecting with naturalistic scores (which represent mature moral judgment), would normally permit empirical generalisation. One might, for example, generalize on the basis of Piaget and Kohlberg's definition of immanent justice, and conclude that rejecting mothers foster immature moral judgments in their children. However, the tendency to generalize is severely limited by the apparent lack of this same relationship among the other areas of moral judgment examined in this investigation. In fact, even the generalization that parental attitudes in general affect children's moral judgments is severely limited by the lack of any relationship in the other areas of moral judgment investigated in this study.

Therefore, one can merely state that the significant findings with the immanent justice and naturalistic response scores tend to suggest a role for rejecting mothers and also tend to suggest a role for parental attitudes in general. At the very least, however, the evidence presented thus far would tend to indicate a role for rejecting mothers and that may be situationally specific to the immanent justice and naturalistic response dimension of moral judgments.

Originally, one of the predictions of this thesis was that parents who scored high on the rejecting scale of the M.P.A.S. would have children who score low in the area of mature moral judgments. At least partial support for this prediction is afforded by the findings on immanent justice. Additionally, one of the other predictions of this thesis

was that by identifying those parents who scored highest on the indulgent and protective scales, it would be possible to make predictions as to which children would be most likely to gain from training designed to improve their level of moral reasoning. Since there were no significant findings relating the indulgent and protecting scales of the M.P.A.S. with any of the original pretest scores, it was possible to predict which children would gain the most from training. However, the fact that high scores on the indulgent and protective scales were later found to be significantly related to the computed difference scores on the immanent justice and naturalistic response dimension partially supports the prediction that parents scoring high on these scales would have children who would most readily benefit from a training program designed to teach a higher level of moral reasoning. Support for these predictions, however, is only partial support since analysis of the data concerning punishment, indepedndence of sanctions, and the K.M.J. scores yielded no conclusive findings.

The original intent of this investigation was to establish and indentify a consistent relationship between parental attitudes and children's moral judgments. The results of this investigation have neither established nor negated such a relationship. The lack of support, in terms of significant findings in the other areas of moral judgment, limits the generalizability of the significant findings associated with the immanent justice and naturalistic response scores.

Perhaps it would be well at this point to consider some possible explanations as to why there was a relative lack of conclusive findings in this study. First, there exists the possibility that there is no relationship between parental attitudes and children' moral judgments. The only other research done in this area supports this possibility. Johnson (1962), using the Schben Scale of parental attitudes in connection with Piaget's five dimensions of moral judgment, was also unable to find a close or consistent relationship with moral judgment or one that was able to account for the major portion of the variance.

Another possibility, and one which might be more probable, is that there is a relationship between parental attitudes and children's moral judgements, but it may not be one that is consistent across different dimensions of moral judgment. This would be the same as saying that there is no general factor of moral judgment. Support for this may again be found in Johnson's findings. The primary purpose of his investigation was to determine the relationship within and between different dimensions of moral judgment. From his study, intercorrelations among areas of moral judgment

seemed to show that mature moral judgments in the areas of moral realism, retribution vs. restitution, and efficacy of severe punishment were the most closely correlated with one another, but that responses to questions concerning immanent justice were somewhat less closely correlated to the responses in other areas of moral judgment, and that belief or nonbelief in communicable responsibility was even less closely related to other aspects of moral judgments. These findings suggest the possibility of independence between certain areas of moral judgment. In and of itself, however, it does not explain the almost complete lack of significant findings in the other three areas of moral judgment investigated in this study.

Another possibility for the lack of conclusive findings may lie in the measuring instruments themselves. A very cogent question concerns whether or not the M.P.A.S. actually reflects behavior. This question is one that is often posed of attitude questionnaires. It would seem especially relevant where a forced response type of questionnaire such as the M.P.A.S. is used. This question applies equally well to the moral judgment tests themselves. Perhaps the measures used were to crude and not sensitive enough to adequately disceiminate between mature and immature responses. This might be especially true for the punishment, independence of sanction, and K.M.J. scores.

Finally, one might raise the question of sample size. This might be of particular significance for this study since samples were relatively small. A larger sample would have provided more significance for those correlations found, granting the assumption that the correlations would have remained present.

The above problems and limitations could apply equally as well to child behavior. But it might further be mentioned that the lack of conclusive findings for child behavior only serves to support the findings of others to date, which according to Hoffman (1971) have not shown a relationship between moral judgments and child behavior.

In concluding this discussion, some remarks concerning future research in the area of parental attitudes and children's moral judgments seem appropriate. First, it would be suggested that a larger sample size be used. Second, attention should be addressed to using a sensitive and refined measure of moral judgment. Lastly, it is strongly urged that parental behavior itself be used instead of attitudes. It is felt that if the above suggestions were met, positive results would be forth-coming in the attempt to relate parental behavior to children's moral judgments.

RESULTS AND CONCLUSIONS

The most obvious and consistent finding from the series of experiments described in the previous chapter is that it is possible to change or improve moral judgments among young children. In each experiment trained children performed better on the posttest than those children not receiving training. Related to this finding is that both types of training procedures were effective in all the experiments except one. Another finding was that the children were more advanced than these researchers had expected when initiating the experiment. Of course, it should be remembered that there was limited empirical data about the moral reasoning of children in the contemporary U.S. population. The children were more advanced than the children studied by Piaget. Although the children in this study were more advanced the dimensions of moral reasoning described by Piaget were found to be applicable, i.e., in general the young children reasoned as Piaget described. It is these researchers' opinion that Piaget's description of childrens' moral reasoning is basically accurate but that the number of dimensions of moral reasoning is adequate to explain the full range of children moral reasoning.

Another finding, intriging to the investigators, was the seemingly spontaneous improvement of the control group in some of the experiments. Initially it was proposed that the improvement of the control group resulted from the effect of the pretest, however, one of the later experiments found that taking the pretest alone was not sufficient to produce an advancement in moral reasoning. However, the pretest was found to interact with both sex and training in affecting posttest scores. In general, the effect of the pretest was to facilitate training but the pretest alone was not sufficient to produce the change. It might be thought that the spontaneous improvement of the control groups resulted from the experimental bias; that the researchers or assistants associated with the research scored the posttest higher than they scored the pretest. This bias, as described in the Rytting Jensen and Rytting experiment, does not seem to be the case as the assistants administering the posttest were unaware of the subject assignment. A corresponding change upward in scores didn't occur in the experimental group even though there was not a ceiling effect. When considering the experiments together, the investigators have not been able to determine a satisfactory answer for the change in scores among the control subjects. It is proposed that future research should be undertaken to determine the variables which influences this type of change. The general procedure for these kinds of experiments could require administering a single pretest to group A, multiple pretests to group B, and comparing it with group C who do not receive pretest. It might be that the effect of the pretest is dependent or interacts with the particular moral dimension investigated. Therefore future comparisons of this type would necessarily involve administering a battery of pretests simultaneously, a procedure which was impossible in the procedure required to complete this project.

Another tangental question which should be further investigated is, "What is learned; a simple discrimination, a concept, a rote habit, or has there been a change in the mental structure?" Surveying the

results of all the experiments it is here advanced that what has been acquired is more than a superficial verbal response or discrimination. However, underlying changes in mental structure are not believed to be affected. Instead the researchers conclude that the child has learned a basic concept dealing with a selected area of moral reasoning. These concepts or judgments are thought to be relatively permanent, in some experiments it was shown they are durable over a period of weeks, and also to have the other properties or concepts such as ability to transfer to new situations (note that different posttests have usually been administered) and could be expressed in different forms, (note that in the Jensen and Hafen experiment the children were required to restate the concept and also in the Jensen and Rytting experiment). A belief that there was a change in cognitive structure does receive support from the Jensen and Rytting experiment as changes in children's concepts about punishment did not influence their judgments about independence of sanction. A design which allows the comparison of the effect of training children in one area on their reasoning in another area was possible in only this experiment. In the experiment investigating family correlates there was not a strong correlation between the different types of moral reasoning. This finding also conforms with previous research regarding the parental correlates of children's moral reasoning. The results reported in this report only hint that there is a relationship. It is this author's opinion that investigations in this area are extremely difficult and the measurement problems will have to be further refined before adequate relationships can be found. It is proposed that the unit or scales of measurement employed in these experiments were not adequate for identifying family correlates. To adequately investigate this question more sophisticated measurement instruments must be developed. In addition, it is proposed that in the initial stages of research it would be preferable to identify children or parents from extremely diverse groups of children or parents and compares them as a preliminary step before investigating the more normal populations of children such as those included in this investigation. In numerous areas of psychological research, investigations of extreme groups ordinarily uncovered the controlling variable before they are identified in normal populations.

In interpreting the results it might be well to consider the conclusion drawn in the Jensen and Rytting experiment on Piaget's notion about change. Even though a change is affected in a very short period of time during these experiments it is not impossible to explain the change in terms of a Piagetian analysis. However, it is pointed out that these concepts need not be acquired in the context of peer group interaction. Perhaps more efficient learning results from more formal presentation and experiences that are typically associated with school learning. It seems very short sighted, however, to conclude, that because younger children don't reason at more advance levels in each of these dimensions that they don't possess the necessary or requisite cognitive ability to understand these concepts if sufficient training or experience is provided. The training experience need not be formal and might even include peer interactions. When the mature moral judgments are not found it may also be that the children ages 3, 4, and 5, may lack the necessary verbal skills to adequtely express the concept.

In these cases the forced choice or true or false type of measurement may be a more accurate indicator of the child's ability to understand the concept.

Because these researchers now view the acquisition of moral reasoning as basically a question of concept acquisition it is no longer necessary to limit the number of concepts to those outlined by Piaget and Kohlberg. Remember that Piaget identified these concepts as typical responses to moral delemmas or questions during the heteronomous stage of reasoning. It may be that these dimensions are the most obvious descrepancy between children's reasoning and adult judgment about moral issues, but if a number of categories were selected in advance it may be that a number of other differences between children's and adult's reasoning could be identified. It is proposed that numerous issues or dimensions have not been investigated and that a systematic analysis of moral and ethical thought be conducted to identify a number of new dimensions or categories to distinguish between child adult's reasoning. It is proposed th`t a research project should be undertaken that uses an initial survey of the field of ethics to determine those dimensions described above. After having identified these dimensions they should be operationalized. The issues might include concepts regarding: the nature of truth, justice verses of mercy, social contract problems of bad and good, concepts of utilitarianism, verses absolute values of right and wrong, the concept of private property, freedom, human dignity, duty verses personal pleasure, absolutism verses relativism, immediate verses delayed gratification, etc. These concepts and problems are listed only as possible samples of a total taxonomy that should be developed following a survey of ethical and moral reasoning. The developmental patterns of judgments associated with these concepts and/or problems are at the present time unknown. After identifying the developmental patterns it should be determined to what extent social experiences or training can influence children's judgment in these areas. It is proposed that a survey should be conducted and a number of experiments following the same pattern as those outlined in this report should be undertaken. Furthermore, it is also proposed that it be determined when training would be most appropriate. This age pattern may vary greatly from one culture to another and thus it is proposed that more than one culture be included in such an investigation. Further variables which would be of interest are the relationship of moral reasoning with moral behavior. For example, do children who learn or who are trained to prefer a more mature restitutive as opposed to a retalitory punishment, engage in less retaliation among their peers. In summary it is proposed that further research be conducted in this area according to the following outline.

1. Survey modern moral and ethical thought to determine new dimensions such as those enumerated above.

2. Operationalize these new dimensions of moral reasoning so that they are suitable for testing among children.

3. Determine age pattern in the acquisition and understanding of these new dimensions of moral judgments.

4. Investigate the relationship and interactions of [illegible] type of concept, and age patterns.

5. Investigate the relationship of personality to moral judgment and also the relationship of moral judgment to behavior.

It is concluded that children are maturationly ready to profit from the training in making more mature judgments. It appears that the mode of presentation is not crucial and perhaps even the presentation of dilemmas themselves is sufficient to produce more mature moral judgments. The concept of stages appears to be unnecessary as it appears that children are able to move to a more advanced level of reasoning if sufficient experiences are provided. To replace the stage-development theory, an alternate theory is outlined.

Comprehension Preference Theory

As an alternative explanation of the moral reasoning phenomena, a theory based on comprehension and preference as the factors determining moral thought is proposed. This theory doesn't predict an invariant modal level. The theory is in many respects similar to Kohlberg's but it does propose significant changes.

The first determinant of moral judgment is held to be comprehension. It is proposed that a person can't use a type of reasoning he doesn't understand, but the factors involved in comprehension aren't obvious nor is the pattern of development. Obviously, comprehension should be related to mental capacity since judgment is a mental task. Piaget has postulated stages of cognitive development of thought structures which have been found to correlate with moral judgments. Similarily it is proposed an intellectual ability to handle the mode of reasoning is essential.

The second aprt of comprehension is based on social experience. This experience can be compared to some classroom learning. Sometimes the student can verbally state and/or repeat a phase or statement that has no meaning or significance to him. The student doesn't understand such statements until he "experiences" the concept. This may also be viewed as the emotional aspect of learning. Consider for example the concept of hate, a person can learn several definitions of hate but he doesn't comprehend hate until he experiences the full affect. Thus the factor of comprehension for a concept can be both available, in the sense of hearing it used, and, more signifantly, it can be experienced. This raises many questions about how one experiences moral judgments. The answers are not simple or readily testable, because the concept is emotional as well as cognitively based. Comprehension is then due to an interaction of cognitive abilities, social stimulus conditions and emotion. The individual plays an important role in this interactional process, he is an agent selecting and emphasizing the various factors. One might suppose that this would lead to many totally unrelated confused modes of thought completely individualized. This is not the case since commonality in basic human needs as well as the environmental stimuli produces simi-

lar patterns of reasoning and behavior. Comprehension then defines the available modes of reasoning for each individual. Up to this point the theory sounds much the same as Kohlberg's and/or Piaget's with a slightly different emphasis. Comprehension could be postulated to follow a stage theory. This, however, is not necessary as will be discussed later. The major difference in approaches is due to the postulated factor or preference.

While the person effects comprehension, his main effect occurs through the proposed factor of preference due to personality. The modes of thought used by an individual in making moral judgments should be relatively consistent with the general level of behavior and behavior motivation used by the individual. That is to say, if a person is motivated by instrumental hedonistic motives, his judgments of morality will be relatively consistent with this motivation, which would be Kohlberg's type two. Studies of behavior and behavior motivation are still rather sketchy and hard to generalize but in general there is enough evidence to suggest a correspondence between thought and action. A further example of different motivations is Maslow's motivational hierarchy. It is interesting to note that among those studied by Maslow at his highest motivational level, self-actualization, he found self-regulated and internalized principles of morality; this corresponds to the highest level of moral reasoning found by Kohlberg. Although there are many difficulties in empirically determining an individual's motivation, it doesn't preclude its existence or correlation with moral modes of judgment. There are undoubtedly many more factors of personality that could be related to preference of a given mode of moral reasoning, but it is the purpose of this paper only to propose the factor personality as a determinant of moral judgment and the concept of motivation intuitively appears to be the most relevant.

At this point the discussion of behavior and moral reasoning has introduced a concept tracable at least as far back as William James. This is the idea that behavior is the cause of moral reasoning and not the result of it. This is not to say that moral reasoning doesn't preceed behavior, but that the moral reasoning is caused by the factors motivating behavior. This means that an individual motivated to maintain good relations and respect for authority, reasons morally at level four instead of the converse; that he maintains good relations with authority because he reasons at level four.

Kelley (1970) in a theoretical paper, has proposed an association between moral evaluations and a person's reality evaluations, achievement evaluations and reciprocity evaluations. He proposed these relations on the basis of similarities which he sees between these processes. The type of moral evaluation used by an individual is proposed to be a result of the interactions of these three factors. The comprehension-preference theory is in accord with the proposed personality factors proposed by Kelley. Kelley's factors are easier to evaluate empirically, at least achievement and reciprocity evaluations. Intuitively these three evaluations, reality, achievement, and reciprocity, appear to be closely related to the proposed behavior motivation.

The separate factors of the comprehension preference approach have been presented and briefly described. It is, however, the interaction of these factors which produce the mode of moral thought to be used in a given situation. It is obvious that the separation of social experience, factors of comprehension and personality factors of preference, is somewhat arbitrary and there is no clear cut differenciation. They have been separated to show and explain the differences between comprehension and preference which are more clearly differenciable. In terms of comprehension and preference then a mode of moral thought is used because it is among those comprehended and it is preferred on the basis of personality for the given situation. This theory allows for much variation in the use of moral thought modes, but would still expect grouping around a modal type. The theory allows for and even expects individual differences. The approach also would predict regression from one mode of moral thought to a lower one as well as skipping a level of moral judgment as a modal type. It is not predicted that say level three, would never be used in going from level two as a modal level to level four, but predicts only that level three doesn't necessarily have to be an intervening modal level. The proposed comprehension preference approach is more consistent with existing data. The foregoing description of the comprehension-preference approach to moral reasoning has elements in common with the cognitive developmental approach. The six modes of moral reasoning found by Kohlberg are more complete descriptions of moral reasoning than the concepts typically advanced by psychologists. These types of moral reasoning appear to have, as Kohlberg hypothesizes, and underlying thought structure which he believes are not isolated learned responses for each situation. He maintains that the processes of associative learning are inadequate to explain the attainment of these modes. The six modes of moral thought also appear to form a heirarchical structure. The cognitive development approach attributes this to the heirarchical nature of the thought structures. This heirarchy has two bases: first, the thought modes represent increasing complexity of a cognitive or verbal type; and second, they form a heirarchy of moral complexity or moralness. The level five is a very close approximation if not an alternate form of level six. Kohlberg even points (1964) that it may form an alternate to six rather than a preceeding stage. The other four modes are successive approximations to truly moral reasoning. One can then talk about the six modes of thought as levels of complexity of thought within a heirarchy of moral thought. This doesn't however, imply stages of thought as well as discussed in the succeeding paragraphs.

Kohlberg sees the development of moral reasoning as progressing stepwise from one level to the next and each level displaying a thought structure which must be reorganized and further developed to progress between stages. The comprehension preference approach also proposes sequential development of comprehension but doesn't see this as occurring according to definite stages. The use of modes of thought is then modified from those comprehended by factors of preferences due to personality variables. A person can develop along a continuum within a heirarchy and not necessarily follow stages.

An invariant sequence precludes the possibility of an individual ever skipping a mode of thought, thus, by finding one such case the stage

theory is challenged. An invariant sequence leaves several hard to answer questions. A stage theory would, in the strictest sense, imply that one advanced in discreet not continuous steps. It also implies that the defined levels of moral judgment are the only available levels with no judgments possible that can't clearly be classified in one of these levels. Progression should take a complete discontinuous jump from one stage to another this, however, isn't consistant with empirical evidence. See Hoffman, 1970. To explain this discrepancy cognitive development theorists assume that progression between stages is accomplished by incorporating thinking from other levels with thinking at the modal level and thus a gradual or continuous development is observed. This interpretation of a stage theory is more consistant with empirical evidence, but if this is the case, where does one draw the distinction between gradual development and stage theory? It is possible that one can comprehend and use parts of the structures at level six before he can completely comprehend level five or even four. This isn't consistent with the initial or definition of stage theory. It is much more parsimonious and consistent with the data to accept only the heirarchical nature of the different modes of thought.

Another problem with stage theory is found in approaching it from a physiological viewpoint. What development is responsible for the stages? Complete neural development is completed long before the higher modes of thought are consistently used. Stages due to social experience seem unlikely since a child's social experiences are certainly not ordered invariantly. Postulating sequentiality of the moral self and moral experience is equally unlikely having the same fallactious premises. The closest approximation appears to be cognitive development. But moral judgment is more than a simple task. A problem with stage theory becomes apparent when one examines the adult-child dichotomy in moral development. Only the cognitive aspect of sequentially could have relevance here, but cognitive development appears to be completed in childhood but moral development can still occur after that time. This lag between ability to comprehend and use of the thought modes is better explained with the comprehension preference approach.

Concluding the presentation of the comprehension preference theory it is appropriate to explain how it handles age increase in level of moral judgment and the observed sequentiality in longitudinal studies. First, it should be pointed out that even in a longitudinal study one only sees the development at intervals (perhaps three year intervals) and must extrapolate the findings to determine what occured in the interviewing time. Since the six types of moral reasoning from a heirarchy of complexity and moralness a typical pattern of development is upward through the heirarchy and the observed phenomenon of development appears very similar to stages. The crucial questions are whether the development is continuous or discreet in the sense that a definite interstage change is made and whether or not the sequence is invariant. The comprehension preference approach would expect variability in rate of development and in the mode of reasoning most commonly used. The comprehension preference approach would also allow for and to some extent expect occasional skipping of levels although the frequency of this could be very small and still be in agreement with the theory. Skipping a level is also

limited by the comprehension of a level which would more closely follow a predictable sequence. Stage theory can explain only with difficulty the observed regressions of moral judgment levels whereas the comprehension preference approach expects and even predicts regression. One other major difference is the use of modes of thought other than the modal level. The comprehension preference approach would not expect the previously defined modal level to be used exclusively; with perhaps considerable amounts of reasoning done at other levels. Stage theory would expect the majority of reasoning to be at the modal level with very little reasoning at other levels. The experiments presented in this report are more supportive of the comprehension preference approach than the cognitive developmental approach. The cognitive development approach generally explains the large amount of change resulting from brief training programs by saying that the children involved were just at a transitional stage. It seems unlikely that the different age groups used in these and other experiments were all at the transitional stage for each of the dimensions of moral reasoning measured. In Appendix A is a brief overview of other research relating to the question discussed above.

Moral Education and Further Research

Basically from the studies presented in this report a few basic generalizations about training can be established: It is possible to train children to reason more maturely about ethical and/or moral problems. The training can be accomplished with even preschool children, requiring only a brief training program. It appears that intrinsic reinforcement as opposed to giving external reward is sufficient to motivate the student to participate and also to acquire the appropriate responses. It is concluded that the correct answer has some kind of self appeal in terms that even a preschool child's conception on what is right or wrong or good and bad. It appears to these researchers that the child does not have a difficult time accepting the underlying principle. The primary difficulty for the child lies in identifying the problem and understanding the problem in a new situation. In application, the primary task is not convincing the child that the principle or concept is valid but rather to help the child discriminate exemplars from nonexemplars of the concept to apply this information in new situations. It appears unnecessary to exert much persuasion or any indoctrination of specific values or beliefs to facilitate the growth of more advanced moral reasoning. This is a fortuitous finding since the teaching of ethical beliefs or moral principles must fall within the acceptable limits and prescribed value systems of the supporting culture. The most frequent and serious objection to moral or ethical training in the school is that a child is being indoctrinated. This objection can be avoided. The mere presentation of a moral dilemma is usually sufficient to bring about greater maturity in the child. It even appears unnecessary to structure the learning activities beyond mere presentation of the moral dilemmas. The instructor may not even need to identify the correct answer or in any way impose a viewpoint on the child. What essentially happens in a problem when it is presented is that the learner is first able to discriminate the elements within the dilemma. By presenting multiple dilemmas the child is able to see the concept or problem in a number of different situations thus increasing the probability that he can generalize his

understanding of the concept to new problem dilemmas. The goal of instruction is then to facilitate and promote a child's understanding of the issues involved in moral dilemmas or problems. Maturity in this case is not considered to be only acquiring an identifiable response but includes being able to consider and be aware of the various elements of the analysis of the problem. Thus the instructional approach recommended is to expose and perhaps clarify the central issues of a moral dilemma without imposing a predetermined solution upon the child. Our evidence suggests that this instructional approach will result in more advanced reasoning by the child. This approach should circumvent curriculum objections used by those who fear indoctrination or imposing unwanted values on the child. While the approach sounds elementary, perhaps too easy, our experience indicates that visual materials, a resource file of examples, skill in presentation and discussion require much preparation and intelligence from the instructional staff. It is also our opinion that even the university and graduate students assisting in conducting our experience gained insight into the nature of various moral dilemmas as they prepared materials and assisted in the training. Thus we conclude, even though our preschool children were able to reason more maturely after training, that children at older ages would benefit from the type of training program used developed for the experiments reported in this project. Preliminary investigations, suggested earlier in this report, are needed to determine the existing level of moral reasoning among different age groups. These preliminary investigations should include the other dimensions of moral reasoning, also referred to earlier, that could be identified by analysis of historical and comtemporary ethics. After this analysis and determination of developmental patterns of comprehension instructional strategies should be developed by using the general measurement and training procedures developed from this project. These research proposals are held to be the logical and necessary extensions of the work described in this project. In addition, the success of almost every experiment undertaken in this project support the arguements that moral or ethical education will be feasible and practical within the elementary and secondary levels of the public school systems.

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APPENDIX A

Materials and Supplimentary Information for Experiment:

The Effect of Training Children

to Consider Intentions

When Making Moral Judgments

Pretest Stories
(A = Accidental; I = Intentional)

1. I. One day when Henry's mother was out, Henry tried to get some cookies out of the cookie.jar. He climbed up on a chair, but the cookie jar was still too high, and he couldn't reach it. But while he was trying to get the cookie jar, he knocked over a cup. The cup fell down and broke.

1. A. John is in his room. John's mother says, "Come down to dinner, John." John goes down and opens the door to the dinning room. But behind the door was a tray with 15 cups on it. John didn't know the cups were behind the door. He opens the door, the door hits the tray. Bang go the 15 cups, and they all get broken.

2. A. Claudia and her sister are looking at pictures of the family. As Claudia starts to turn the page of the family picture book, her hand bumps into a glass of cherry soda. It spills on the album, and marks up about 20 pictures.

2. I. Norma is looking at the snapshots the family took while on their vacation last summer. As she looks through the vacation snapshots, she notices that her brother got into most of the pictures; he's in almost all of them. So when she comes to another picture with her brother in it, she gets a crayon and makes a mark on the pictures.

3. A. One day Floyd's father is painting the fence. Floyd asks his father, "Can I help you?" His father says, "Sure." So Floyd gets a brush and starts painting the fence. After awhile, he steps back to see how it looks. But he forgot that the paint can was behind him, and his foot knocks over the paint can, and the paints spills all over the ground.

3. I. Paul comes out to watch his father paint the picnic table. He asks his father, "Can I help you?" His father says, "Paul, don't bother me now." Paul doesn't like that. So when his father goes to the garage, Paul takes the paint stick and dribbles a little paint on the ground.

4. I. One morning, Alice came in from the yard and found that her mother wasn't home yet. Alice thinks, "I'll get some ice cream before my mother comes home." She gets a little dish from the cupboard. As she is going to the refrigerator, the little dish slips out of her hand and breaks.

4. A. Kathie's mother was late coming home from shopping. Kathie thinks, "I'll help my mother by setting the table for her." As she is carrying the dishes to set the table, two large dishes slip out of her hand, fall and break.

5. I. Harvey and his class are playing kickball. All of a sudden, the school bell rings. The teacher says, "Recess is over; everybody back to the classroom." Harvey didn't have a turn yet at kicking the ball, so when the teacher is lining up the children, Harvey kicks the ball to the far corner of the playground, and someone has to go and get it.

5. A. Two kindergarten classes are playing a game to see which class can kick the kickball the farthest. Everybody has had a turn except Ross. So far the classes are even, but if Ross can kick the ball real far, his class will win. Ross takes careful aim, and kicks the ball with all his might. The ball goes sailing across the playground, smashes into a window and breaks it.

6. A. The teacher asks, "Who would like to help clean up the paints?" Judy says, "I will, teacher." Judy wants to help so much that she tries to carry six paint jars to the sink. But they slip out of her hand and spill all over the floor.

6. I. Ann doesn't care very much for finger painting. When the class was finger painting that afternoon, Ann didn't do much finger painting. She just played with the paint, and a little paint dribbled on her desk.

7. I. One day at school, Sam's friend made fun of him. Later that day, Sam saw his friend coming home from school. Sam hid behind a fence and as his friend passed by, Sam spirted him on the leg with a water pistol.

7. A. One afternoon, Jack was watering the lawn for his father. One of his friends was passing by, and started to make fun of Jack. So Jack turned his head to look at his friend. When Jack turned his head, the hose spirted water all over the man next door, who happened to be walking by just then.

8. A. Mabel is helping her mother vacuum the playroom. As Mabel is pushing the vacuum back and forth, the vacuum bumps against the leg of the table, and a bunch of records fall off the table and ten of them break.

8. I. Rose's older sister plays the record player a lot. One day Rose's sister played the same record over and over again, and Rose is tired of hearing this record. Rose takes the record and hides it for awhile so her sister can't play the record.

Training Stories--Verbal Discrimination Group
(A = Accidental; I = Intentional)

First Session

1. A. Earl is getting the newspaper so his father can read it. As he's going up the steps, the newspaper slips out of his hand and falls behind the steps. Nobody can reach it, so his father has no paper to read that evening.

1. I. Hank hides the newspaper for fun. He puts it behind the steps, so nobody can reach it. So his father has no paper to read that evening.

2. A. Sue's friend is visiting her. Sue puts her friend's bicycle in the driveway so her friend will see it and not forget it when she goes home. Sue goes back inside. Just then, a truck comes by and hits the bicycle and breaks a pedal.

2. I. Edith's friend won't let her ride her bike. So Edith pushes her friend's bike over, and a pedal breaks off.

3. I. Some boys are building a plane. They go inside. Oscar comes by and sees the plane. Nobody is looking so Oscar flies the plane. When it lands, a little piece of the wing breaks off.

3. A. Some boys are building a plane. They have to go to lunch. Lee says, "I'll finish it, so it'll be ready when you come back." He starts to cut the last piece. He doesn't see the plane behind the wood he's cutting, so when he saws the wood, he cuts off a little piece of the wing.

4. A. Karen's sister gets her kite caught in a tree. Karen is trying to get it down for her sister. She throws a ball at it. The ball misses the kite and lands on the garage roof. Karen's father has to come out and get the ball.

4 I. Ethel sees a bird's nest in the tree. She's trying to knock it down. She throws a ball at it. The ball misses the nest and lands on the garage roof. Ethel's father has to come out and get the ball.

5. A. Sharon is painting a picture. After a while, she steps back to see how it looks. She doesn't see the cat behind her, and she steps on the cat's tail. "Meow!" cries the cat, and runs out of the room.

5. I. Peggy's cat is sick. It's been meowing all day. Peggy gets tired of of hearing this, so she steps on the cat's tail. "Meow!" cries the cat, and runs out of the room.

6. I. Fred is mowing the lawn. He doesn't feel like doing it. He sees a rock ahead of him. He doesn't go around it; he mows right over it. The rock makes a little cut in the blade of the mower.

6. A. Jack is mowing the lawn. While he's mowing, his friend yells to him. Jack turns his head to look at his friend, so he doesn't see the rock ahead of him. He mows right over the rock, and it makes a little cut in the blade of the mower.

7. A. Jean sees her mother coming home with the groceries. She goes out to help. She takes a box from her mother and goes up the steps. As she's going up, she slips and falls. Four eggs break.

7. I. Diane's mother says, "Put the eggs in the refrigerator." While she's doing so, Diane starts to play with the eggs. She rolls them around the table. Four eggs fall off the table and break.

8. I. Paul's mother says, "Do you see my glasses in there?" Paul is reading a comic book. He doesn't look up. "Nope," he says. So his mother has to come in and look. She finds the glasses on the table.

8. A. Alan's mother says, "Do you see my glasses in there?" Alan gets up and looks around. The glasses are under a book, so Alan doesn't see them. "I can't find them," he says. So his mother has to come in and look. She finds the glasses under the book.

9. I. Carl sees a boy walking across his front lawn. He tosses a pebble at him, and yells, "Hey!" Keep of the new grass!" The pebble hits the boy's elbow and makes a little bruise.

9. A. Joe is playing ball. He swings at a pitch, but the bat slips out of his hand and bumps into the boy behind him. It hits him on the elbow, and makes a little bruise.

Second Session

1. A. Arthur's father says, "It's time for bed; shut off the TV set." Arthur turns the knob. As he does, the knob falls off.

1. I. Frank's father says, "Don't play with the TV set." Frank keeps changing stations, spinning the knobs. One of the knobs fall off.

2. A. Maureen is cleaning the playroom. As she's picking up crayons and books, she slips on a crayon. One of the crayons in her hand makes a mark on her sister's coloring book.

2. I. Carol's sister won't change the TV program. Carol doesn't like that so while her sister is watching TV, Carol goes and makes a mark on her sister's coloring book.

3. I. Ed is helping his father clean the garage. His father tells him to work harder. Ed doesn't like that. He kicks the wall and a can of oil falls off the shelf and spills.

3. A. Kevin is helping his father clean the garage. As he's sweeping his broom pumps against the wall. A can of oil falls off the shelf and spills.

4. A. Maria wants to make a pretty picture book for her sister. She cuts out a page of a magazine. She didn't know that the magazine was a new one, that somebody had put it on the pile of old magazines by mistake. So one page is gone from the new magazine.

4. I. Christine's sister is reading a new magazine. Christine says, "Let me read it now." Her sister says, "No, I'm not finished." Christine tries to take it away. As she pulls it, one page tears out. So one page is gone from the new magazine.

5. I. Mona asks her sister, "Can I help with your puzzle?" "No, I'm not finished." Christine tries to take it away. As she pulls it, one page tears out. So one page is gone from the new magazine.

5. A. Gloria is cleaning the playroom. She sees an old bag on the floor and throws it away. She doesn't know there's a piece of her sister's puzzle in the bag. Her sister then can't finish the puzzle.

6. I. George is washing up. His mother says, "Hurry out; get to bed!" George doesn't like that, so he leaves the water running. Some water goes on the floor.

6. A. Chuck is washing up. He hears his little brother crying so he runs out

to see what wrong and forgets that he's left the water running. Some water goes on the floor.

7. I. Pat's friend owns a bird. She tells Pat, "You can't feed him." Pat doesn't like that. When her friend is inside, Pat opens the cage and the bird flies out.

7. A. Avis' friend owns a bird. She asks Avis, "Will you please carry my bird cage?" While Avis is carrying the cage for her friend the cage slips out of her hand. When it hits the ground the cage opens and the bird flies out.

8. I. Ken's father is using the hose to water the lawn around the corner of the house. Ken wants to have some fun so he turns off the hose and runs away. His father has to come back and turn it on again.

8. A. Norm's father is using the hose to water the lawn around the corner of the house. Norm is mowing the lawn. He doesn't see the hose and runs right over it, pulling it off the faucet. His father has to come back and put it on again.

9. I. Steve is riding his bike very fast in the driveway. He wants to see how close he can come to his father's car. He comes very close; his handle bar hits the fender of the car and makes a little scratch.

9. A. Dan is helping his father wash the car. While he's holding the bucket and washing the car, the bucket bumps the fender and makes a little scratch.

Third Session

1. I. Noel has a library book. On the way home, she's playing with her friend. She throws the book to her. The friend misses it and it falls into a mud puddle and gets dirty.

1. A. Ann has a library book. On the way home, as she steps off the bus, the book slips out of her hand. It falls into a mud puddle and gets dirty.

2. A. Judy has some new shoes. On the way home while she's waiting for the light to change, a truck comes by and splashes mud on her shoes. Her new shoes get all dirty.

2. I. Debra has some new shoes. On the way home, she sees a mud puddle. She goes over and walks through it. Her new shoes get all dirty.

3. A. Hugh goes to the refrigerator to get some pop for his mother. He

closes the door, but he doesn't see that it isn't tightly shut. When he goes to give his mother the pop, the door opens again. When his mother comes in later, the ice cubes in the refrigerator have begun to melt.

3. I. Eugene asks, "Can I have some pop?" "No," says his mother, "it's too close to supper." Eugene doesn't like that, so he leaves the door of the refrigerator open. When his mother comes in later, the ice cubes in the refrigerator have begun to melt.

4. I. Louie is playing "Tarzan" in the front room. He climbs up on the drapes, and the drapes get wrinkled.

4. A. Tony is cleaning the drapes in the front room for his mother. He uses the wrong kind of soap. He doesn't know it's the wrong kind; it was right next to the other soap. Because he used the wrong kind, the drapes get wrinkled.

5. A. Virginia is going to water the plant for her teacher. As she's watering, the watering can hits a box of chalk. It falls, and one piece of chalk breaks.

5. I. Sarah's teacher goes out of the room after saying, "Stay in your places," When the teacher leaves, Sarah goes to the blackboard and starts to write. As she's writing, the piece of chalk breaks.

6. I. Fred is picking apples, and his friend is down below. When his friend is looking the other way, Fred takes an apple, looks down, and drops it on his friend. It hits his friend's head. "Ouch!" says his friend.

6. A. Mickey is picking apples. As he's looking up and reaching for an apple, the branch that he's sitting on shakes. An apple behind him falls down, and hits his friend on the head. "Ouch!" says his friend.

7. A. It's Nancy's mother's birthday. Nancy thinks, "I'll make a surprise cake." While she's making it, her elbow bumps against the flour bag and a little flour spills.

7. I. Mary Jane asks her mother, "Can I bake a cake?" Her mother says, "No, I'm using the kitchen now." Mary Jane doesn't like that. As she leaves the kitchen, she pushes over the flour box, and a little flour spills.

8. A. Gerald comes home from football practice. As he's walking up the steps, he trips and falls against the door, and makes a little crack in the glass.

8. I. Henry is coming home from football practice. The coach yelled at him during practice, so Henry is feeling bad. He slams the door behind him, and makes a little crack in the glass.

9. I. When the teacher goes out of the room, Suzanne runs into the coat room to hide. As she goes running in, it's dark in there. She hits the wall and a box of chalk falls. Three pieces of chalk break.

9. A. The teacher asks, "Who will put this vase away?" "I will," says Maria. When she goes into the closet, it's dark so she doesn't see a box of chalk on the shelf. When she goes to put the vase on the shelf, it knocks over the box, and three pieces of chalk break.

Fourth Session

1. I. Alice is skating. Her friend comes by. She's a very good skater. Alice doesn't like it that her friend skates so well. When her friend skates by, Alice pushes her. Her friend falls.

1. A. Denise is skating. She's going backwards, so she doesn't see her friend behind her. She bumps into her, and her friend falls.

2. A. Bob asks his friend, "Can I help you build that tower?" "Sure," says his friend. As Bob puts a block on the top of the tower, his hand slips, and one block falls off the tower.

2. I. Hugh asks his friend, "Can I help you build that tower?" "No," says his friend. When his friend turns to pick up a block, Hugh kicks the tower. One block falls off the tower.

3. A. Larry is carrying a box to the garage for his father. Two nails fall out of the box, but Larry doesn't see them so he doesn't pick them up. When his father drives in that evening, he gets a flat tire.

3. I. Dean says, "I wonder if nails make a tire flat. . ." He wants to find out, so he throws two nails in the driveway. "Now I'll see," says he. When his father drives in that evening, he gets a flat tire.

4. A. While Patrick's father was away, Patrick noticed that his father's pen was empty. He thought he'd help by filling the pen so it would be

ready when his father needed it. But while he was opening the bottle, the ink spilled and made a little spot on the tablecloth.

4. I. While Donald's father was away, Donald thought it would be fun to play with his father's pen. First he played with it for awhile, then he made a little spot on the tablecloth.

5. I. The cheese has gone bad, and it smells. Ellen doesn't like the family dog, so she puts the cheese in the dog's dish. The dog eats it and gets a little sick.

5. A. The cheese has gone bad, and it smells. Priscilla says, "I'll throw it out." While she's carrying it to the garbage barrel, some of it falls out of the bag into the dog's dish. The dog eats it and gets a little sick.

6. A. Eleanor is a Girl Scout out camping. While she's stirring the soup it spills and puts the fire out. The Scout Leader is mad and asks, "Who put the fire out?"

6. I. Shirley is a Girl Scout out camping. While waiting for the food to come, Shirley starts to waterfight. She throws a pail at her friend. The friend ducks and the water spills on the fire and puts it out. The Scout Leader is mad and asks, "Who put the fire out?"

7. I. Bernie's sister tells him, "Be quiet; don't wake the baby." Bernie is tired of his sister telling him what to do. As he goes out, he slams the door. The baby wakes and starts to cry.

7. A. Leo's sister tells him, "Be quiet; don't wake the baby." Leo starts to tip-toe out of the room. He doesn't see the toy on the floor and steps on it. It goes SQUEAK! The baby wakes and starts to cry.

8. I. Loraine is playing tag. She's always getting tagged by the other girl. Loraine doesn't like that. Next time the girl tags her, she tags her back right in the eye. The girl gets a little bruise.

8. A. Marcia is playing tag. As she goes to touch another girl, Marcia slips and falls. While she's falling, her hand hits a friend who's running by just then, right in the eye. The girl gets a little bruise.

9. A. Walter is helping his friend build a tree house. A boy hands Walter a big board for the roof. As Walter is lifting the board, it drops out of his hands because it's too heavy. As it falls, it knocks down half a board.

9. I. Some boys are building a tree house, but they won't let Ken help. Ken comes by the tree house when the boys are away to lunch.

He looks around, and sees that nobody's there. So he pulls half a board from the tree house.

Fifth Session

1. I. Elsa goes to the store with some money. "Come right back," her mother says. On the way, she sees a friend who says, "Come and play." So she plays. While she's playing, a quarter falls out of her pocket and gets lost.

1. A. Bonnie goes to the store with some money. "Come right back," her mother says. On the way, she meets a friend who has lost her doll. Bonnie wants to help, so she looks for the doll with her friend. While she's looking, a quarter falls out of her pocket and gets lost.

2. I. Mike has his new Sunday shoes on. "I think I'll climb a tree before my mother gets home," says he to himself. He climbs the tree, and gets scratches on his new shoes.

2. A. Al has his new Sunday shoes on. "I think I'll polish them before I go to church," says he to himself. He gets a brush which is old and hard. He doesn't know that. When he starts to brush the shoes he gets scratches on the new shoes.

3. A. Vince is supposed to go to bed at eight o'clock. His father forgot to wind the clock, so it stopped at seven. Vince comes in to see what time it is. "It's only seven," he says, "I can stay up another hour, until eight." But it was really eight o'clock then, so that meant he really stayed up until nine.

3. I. Andrew is supposed to go to bed at eight o'clock. His parents aren't home, and he's reading a good comic book, so he stays up until nine o'clock.

4. A. Will is with his father in the car. His father says, "Turn off the radio, please." When Will reaches for the radio, his hand hits the cigarette lighter. It falls out, and makes a little burn on the seat.

4. I. Neal is with his father in the car. His father stops to go to the store, and tells Neal, "Don't touch anything until I get back." While his father is gone, Neal plays with the knobs on the dashboard. The cigarette lighter falls out, and makes a little burn on the seat.

5. A. Rachel's father tells her, "Don't walk on the new grass." Rachel later is playing blindman's buff. She doesn't know where she is, and she walks right across the new grass.

5. I. Marcia's father says, "Don't walk on the new grass." Marcia sees her friend, who calls to her, "Come on over and play." She's in a hurry, so she walks across the new grass.

6. I. Hanna is going to a party with a new dress on. She sees a mud puddle, and stops to make some mud pies. The new dress gets all dirty.

6. A. Theresa is going to a party with a new dress on. She sees a cat caught in a mud puddle, and he can't get out. So she gets a stick and pulls the cat out. Her new dress gets all dirty.

7. I. Alex is shopping with his mother. "Can I buy some candy, Mom?" he asks. "Not today," she says. Alex feels bad, so he pushes the carriage into the shelf. A ten cent bag of candy falls and spills.

7. A. Herb is shopping with his mother. When she calls him, he turns his head to look, so he doesn't see the box of candy in the middle of the aisle. He bumps into the box, and a ten cent bag of candy falls off the box and spills.

8. A. Some girls are skipping rope. Bridget has a cold. When she starts to cough, she puts her hand to her mouth. But the rope is in her hand, so when she does, it pulls the rope, and trips the girl who's jumping in the middle. The girl falls.

8. I. Some girls are skipping rope. The girl in the middle is very good. "Humph!" thinks Evelyn, "She thinks she's so good!" So she pulls the rope, and it trips the girl who's jumping in the middle. She falls.

9. I. Frank is taking his dog for a walk. The dog is going too slow, so Frank steps on his tail. "Yelp!" says the dog and walks faster.

9. A. Ritchie is taking his dog for a walk. He hears a big plane, and looks up. While looking up, he steps on his dog's tail. "Yelp!" says the dog and walks faster.

Training Stories: Discussion Group

First Session

2. A. Sue's friend is visiting her. Sue puts her friend's bicycle in the driveway so her friend will see it and not forget it when she goes home. Sue goes back inside. Just then, a truck comes by and hits the bicycle and breaks a pedal.

2. I. Edith's friend won't let her ride her bike. So Edith pushes her friend's bike over, and a pedal breaks off.

a. Which little girl left her friend's bicycle in the driveway because she didn't want her friend to forget it?
b. Did she want the truck to hit the bicycle? Was this an accident?

a. Which little girl pushed her friend's bicycle over?
b. Did she do this on purpose?

5. A. Sharon is painting a picture. After a while, she steps back to see how it looks. She doesn't see the cat behind her, and she steps on the cat's tail. "Meow!" cries the cat, and runs out of the room.

5. I. Peggy's cat is sick. It's been meowing all day. Peggy gets tired of hearing this, so she steps on the cat's tail. "Meow!" cries the cat, and runs out of the room.

a. Which little girl didn't mean to step on her cat's tail?
b. Was this an accident?

a. Which little girl wanted to step on her cat's tail?
b. Did she do this on purpose?

6. I. Fred is mowing the lawn. He doesn't feel like doing it. He sees a rock ahead of him. He doesn't go around it; he mows right over it. The rock makes a little cut in the blade of the mower.

6. A. Jack is mowing the lawn. While he's mowing, his friend yells to him. Jack turns his head to look at his friend, so he doesn't see the rock ahead of him. He mows right over the rock, and it makes a little cut in the blade of the mower.

a. Which little boy didn't mean to mow over the rock?
b. Was this an accident.

a. Which little boy knew he was going to mow over the rock?
b. Did he do it on purpose?

8. I. Paul's mother says, "Do you see my glasses in there?" Paul is reading a comic book. He doesn't look up. "Nope," he says. So his mother has to come in and look. She finds the glasses on the table.

8. A. Alan's mother says, "Do you see my glasses in there?" Alan gets up and looks around. The glasses are under a book, so Alan doesn't see them. "I can't find them," he says. So his mother has to come in and look. She finds the glasses on the table.

a. Which little boy looked for his mother's glasses?
b. Was he trying to help his mother?

a. Which little boy did not look for his mother's glasses?
b. Was he trying to help his mother?

9. I. Carl sees a boy walking across his front lawn. He tosses a pebble at him, and yells, "Hey! Keep of the new grass!" The pebble hits the boy's elbows, and makes a little bruise.

9. A. Joe is playing ball. He swings at a pitch, but the bat slips out of his hand and bumps into the boy behind him. It hits him on the elbow, and makes a little bruise.

a. Which little boy swings the bat and bumps the boy behind him?
b. Did he mean to do it?

a. Which little boy threw a pebble and hit another little boy?
b. Did he mean to do this?

Second Session

1. A. Arthur's father says, "It's time for bed; shut off the TV set." Arthur turns the knob. As he does, the knob falls off.

1. I. Frank's father says, "Don't play with the TV set." Frank keeps changing stations, spinning the knobs. One of the knobs fall off.

a. Which little boy was doing what he was told?
b. Which little boy broke the TV set by accident?

a. Which little boy kept playing with the TV set after his father told him not to?
b. Which little boy broke the TV set because he was disobeying his father on purpose?

4. A. Maria wants to make a pretty picture book for her sister. She cuts out a page of magazine. She didn't know that the magazine was a new one that somebody had put it on the pile of old magazines by mistake. So one page is gone from the new magazine.

4. I. Christine's sister is reading a new magazine. Christine says, "Let me read it now." Her sister says, "No, I'm not finished." Christine tries to take it away. As she pulls it, one page tears out. So one page is gone from the new magazine.

a. Which little girl wanted to do something nice for her sister?
b. Which little girl ruined the new magazine by mistake?

a. Which little girl tried to take the magazine away from her sister?
b. Which little girl ripped the magazine on purpose?

6. I. George is washing up. His mother says, "Hurry out; get to bed!" George doesn't like that, so he leaves the water running. Some water goes on the floor.

6. A. Chuck is washing up. He hears his little brother crying, so he runs out to see what's wrong and forgets that he's left the water running. Some water goes on the floor.

a. Which little boy went to help his brother?
b. Which one didn't mean to leave the water running?

a. Which little boy was angry with his mother?
b. Which little boy left the water running on purpose?

8. I. Loraine is playing tag. She's always getting tagged by the other girl. Loraine doesn't like that. Next time the girl tags her, she tags her back, right in the eye. The girl gets a little bruise.

8. A. Marcia is playing tag. As she goes to touch another girl, Marcia slips and falls. While she's falling, her hand hits a friend who's running by just then, right in the eye. The girl gets a little bruise.

a. Which little girl was playing the game in a nice way?
b. Which little girl hurt her friend by accident?

a. Which little girl was mad at her friend?
b. Which little girl wanted to hurt her friend?

9. I. Steve is riding his bike very fast in the driveway. He wan's to see how close he can come to his father's car. He comes very close; his handle bar hits the fender of the car and makes a little scratch.

9. A. Dan is helping his father wash the car. While he's holding the bucket and washing the car, the bucket bumps the fender and makes a little scratch.

a. Which little boy was helping his father wash the car?
b. Was it an accident that he scratched the car?

a. Which little boy bumps the fender of his father's car with his bicycle?
b. Was he supposed to be playing near his father's car?

Third Session

1. I. Noel has a library book. On the way home she plays with a friend. She throws the book to her. The friend misses it and it falls into a mud puddle and gets dirty.

1. A. Ann has a library book. On the way home, as she steps off the bus, the book slips out of her hand. It falls into a mud puddle and gets dirty.

a. Which little girl dropped the book as she stepped off the bus?
b. Was this an accident?

a. Which little girl threw the book at her friend but it falls into a mud puddle?
b. Did she do this on purpose?

4. I. Louie is playing "Tarzan" in the front room. He climbs up on the drapes and the drapes get wrinkled.

4. A. Tony is cleaning the drapes in the front room for his mother. He uses the wrong kind of soap. He doesn't know it's the wrong kind; it was right next to the other soap. Because he used the wrong kind, the drapes get wrinkled.

a. Which little boy wanted to help his mother clean the drapes but wrinkled them because he used the wrong kind of soap?
b. Was this an accident?

a. Which little boy wrinkled the drapes because he climbs them?
b. Did he do this on purpose?

5. A. Virginia is going to water the plant for her teacher. As she's watering, the watering can hits a box of chalk. It falls, and one piece of chalk breaks.

5. I. Sarah's teacher goes out of the room after saying, "Stay in your places." When the teacher leaves, Sarah goes to the blackboard and starts to write. As she's writing the piece of chalk breaks.

a. Which little girl wanted to help her teacher?
b. Was it an accident that the chalk fell and broke?

a. Which little girl did not listen to her teacher?
b. Was it her fault that the chalk broke?

6. I. Fred is picking apples, and his friend is down below. When his friend is looking the other way, Fred takes an apple, looks down, and drops it on his friend. It hits his friend's head. "Ouch!" says his friend.

6. A: Mickey is picking apples. As he's looking up and reaching for an apple, the branch that he's sitting on shakes. An apple behind him falls down, and hits his friend on the head. "Ouch!" says his friend.

a. Which little boy was picking apples and an apple fell behind him and hit his friend?

b. Was this an accident?

a. Which little boy dropped an apple on his friend?
b. Was this an accident? Did he do this on purpose?

8. A. Gerald comes home from football practice. As he's walking up the steps, he trips and falls against the door and makes a little crack in the glass.

8. I. Henry is coming home from football practice. The coach yelled at him during pracitce, so Henry is feeling bad. He slams the door behind him, and makes a little crack in the glass.

a. Which little boy tripped and made a crack in the glass?
b. Was this an accident?

a. Which little boy was angry and made a crack in the glass when he slammed the door?
b. Did he do this on purpose?

Fourth Session

1. A. Denise is skating. She's going backwards so she doesn't see her friend behind her. She bumps into her, and her friend falls.

1. I. Alice is skating. Her friend comes by. She's a very good skater. Alice doesn't like it that her friend skates so well. When her friend skates by, Alice pushes her. Her friend falls.

a. Which little girl hit her friend by accident?
b. Which little girl was sorry she had hurt her friend?

a. Which little girl was jealous of her friend?
b. Which little girl wanted her friend to fall?

3. A. Larry is carrying a box to the garage for his father. Two nails fall out of the box but Larry doesn't see them so he doesn't pick them up. When his father drives in that evening he gets a flat tire.

3. I. Dean says, "I wonder if nails make a tire flat . . ." He wants to find out so he throws two nails in the driveway. "Now I'll see," says he. When his father drives in that evening, he gets a flat tire.

a. Which little boy didn't see the nails?
b. Which little boy left the nails in the driveway by accident?

a. Which little boy wanted his father to get a flat tire?
b. Which little boy left the nails in the driveway on purpose?

4. A. While Patrick's father was away, Patrick noticed that his father's pen was empty. He thought he'd help by filling the pen so it would be ready when his father needed it. But while he was opening the bottle, the ink spilled and made a little spot on the tablecloth.

4. I. While Donald's father was away, Donald thought it would be fun to play with his father's pen. First he played with it for a while, then he made a spot on the tablecloth.

a. Which little boy wanted to help his father?
b. Which little boy didn't mean to spill the ink?

a. Which little boy was playing with his father's pen?
b. Which little boy made the ink spot on purpose?

6. A. Eleanor is a Girl Scout, out camping. While she's stirring the soup, it spills and puts the fire out. The Scout Leader is mad and asks, "Who put the fire out?"

6. I. Shirley is a Girl Scout out camping. While waiting for the food to come, Shirley starts to waterfight. She throws a pail at her friend. The friend ducks, and the water spills on the fire and puts it out. The Scout Leader is mad, and asks, "Who put the fire out?"

a. Which little girl was trying to be helpful?
b. Which little girl put the fire out by accident?

a. Which little girl was disobeying the rules?
b. Which little girl put the fire out because she was doing something she wasn't supposed to?

8. I. Loraine is playing tag. She's always getting tagged by the other girl. Loraine doesn't like that. Next time the girl tags her, she tags her back, right in the eye. The girl gets a little bruise.

8. A. Marcia is playing tag. As she goes to touch another girl, Marcia slips and falls. While she's falling, her hand hits a friend who's running by just then, right in the eye. The girl gets a little bruise.

a. Which little girl fell and hit her friend in the eye?
b. Was this an accident?

a. Which little girl tagged her friend in the eye because her friend kept tagging her?
b. Did she do this on purpose?

Fifth Session

2. I. Mike has his new Sunday shoes on. "I think I'll climb a tree before my mother gets home," says he to himself. He climbs the tree, and gets scratches on his new shoes.

2. A. Al has his new Sunday shoes on. "I think I'll polish them before I go to church," says he to himself. He gets a brush which is old and hard. He doesn't know that. When he starts to brush the shoes he gets scratches on the new shoes.

a. Which little boy wanted to polish his shoes but got scratches on them because he used an old brush?
b. Was this an accident?

a. Which little boy scratched his shoes because he climbed a tree?
b. Did his mother say he could climb the tree?

5. A. Rachel's father tells her, "Don't walk on the new grass." Rachel later is playing blindman's buff. She doesn't know where she is, and she walks right across the new grass.

5. I. Marcia's father says, "Don't walk on the new grass." Marcia sees her friend, who calls to her, "Come on over and play." She's in a hurry so she walks across the new grass.

a. Which little girl walked on the new grass because she was playing blindman's buff and didn't know where she was?
b. Was this an accident?

a. Which little girl walked on the new grass because she was in a hurry?
b. Did she do this on purpose?

7. I. Alex is shopping with his mother. "Can I buy some candy, Mom?" he asks. "Not today," she says. Alex feels bad, so he pushes the carriage into the shelf. A ten cent bag of candy falls and spills.

7. A. Herb is shopping with his mother. When she calls him, he turns his head to look, so he doesn't see the box of candy in the middle of the aisle. He bumps into the box, and a ten cent bag of candy falls off the box and spills.

a. Which little boy bumped into a box of candy because he didn't see it?
b. Was this an accident? Did he do this on purpose?

a. Which little boy pushed the carriage into the shelf because his mother didn't buy him some candy?
b. Did he do this on purpose? Did he mean to do this?

8. A. Some girls are skipping rope. Bridget has a cold. When she starts to cough, she puts her hand to her mouth. But the rope is in her hand so when she does it pulls the rope, and trips the girl who's jumping in the middle. The girl falls.

8. I. Some girls are skipping rope. The girl in the middle is very good. "Humph!" thinks Evelyn, "She thinks she's so good!" So she pulls the rope and it trips the girl who's jumping in the middle. She falls.

a. Which little girl trips another little girl skipping rope because she starts to cough and puts her hand to her mouth?
b. Was this an accident?

a. Which little girl trips another little girl skipping rope because she pulls the rope?
b. Was this an accident?

9. I. Frank is taking his dog for a walk. The dog is going too slow, so Frank steps on his tail. "Yelp!" says the dog and walks faster.

9. A. Ritchie is taking his dog for a walk. He hears a big plane and looks up. While looking up, he steps on his dog's tail. "Yelp!" says the dog and walks faster.

a. Which boy stepped on his dog's tail because he looks up to watch a big plane?
b. Was this an accident? Did he mean to step on his dog's tail?

a. Which little boy stepped on his dog's tail because the dog was going too slow?
b. Did he mean to do this? Did he do this on purpose?

Posttest Stories
(A = Accidental; I = Intentional)

1. I. David came home from school. His mother was out, so David thought that this would be a good time to get some ice cream. He opens the refrigerator, and sees that there is a lot of ice cream. So he helps himself to a small dish of ice cream.

1. A. One day Peter's mother made sandwiches for the bridge party that night. Then she went out. Then Peter came home from school for lunch. He looks in the refrigerator and sees the sandwiches. He doesn't know that the sandwiches are for the bridge party; he thinks they're for his lunch. So he ate some. That evening, Peter's mother didn't have enough sandwiches for the company.

2. A. Joe and his father go to the shopping center. As they're getting out of the car, his father says, "Joe, lock the car door." But Joe doesn't hear his father so he just closes the door without locking it. While they're in the store, a man comes along and takes a camera out of the car.

2. I. Bill is playing baseball with his old baseball bat. Bill's father says, "Bill, come to supper and bring your baseball bat inside with you." But Bill wants to play with his bat after supper, so he leaves the bat outside on the front lawn. While he's eating supper, a man comes along and takes the bat.

3. I. Doris is all alone at home. She knows that her parents won't be home til suppertime. She wants to see the things in the top of her parent's closet. So she climbs up on a chair. As she's reaching for the things in the closet, her mother's hat box falls down and the hat gets bent a little bit.

3. A. Jane comes in from playing outside. She feels real tired, so her mother tells her to take a rest. She walks over to the sofa and plops

down. Jane doesn't know that her mother left her hat on the sofa. When Jane plops down, she squashes her mother's hat all out of shape.

4. A. One day it starts to rain. Vivian's father says, "Go shut the car windows so the seats won't get wet." Vivian goes out and shuts the windows except the back one. She doesn't see that the back window is open. She goes back inside and the rain gets the seat covers all wet. Her father has to get new seat covers.

4. I. Andrea goes riding with her father. She wants him to get her some ice cream. But her father says, "Not today. We've got to get home because it's raining." Andrea feels sad that she can't have any ice cream. So when she gets out of the car, she doesn't close the window. But it stops raining pretty soon, so only a little rain gets on the seat, and it dries up right away.

5. A. Randy went to the school library to get a book for his teacher. When he was coming back, he opened the classroom door. Just then, a girl was passing by with jars of finger paint. Randy didn't know that she was behind the door. He opened the door. The door hits her arms, the jars fall out of her hands, and the finger paint spilled all over the floor.

5. I. Clark was tickling the boy in front of him while the teacher wasn't looking. The boy turned around to see who was tickling him. Clark jerked his hand back so the boy wouldn't see him. When he jerked his hand back, it hit a small jar of water. A little bit of water spilled on the desk.

6. I. Rachel's class is doing spelling. Rachel is tired of spelling. When the class is spelling, she just plays with the pencil sharpener. When she does, a few little scraps fall on the floor.

6. A. Sonia's teacher asks, "Who will help sharpen the pencils?" Sonia says, "I will, teacher." She wants to help so much that she turns the handle too hard. The pencil sharpener falls over and all the scraps fall on the floor. The teacher has to get a broom and clean all the scraps up.

7. I. It's wintertime. Gary is throwing snowballs. He sees a car coming by, so he throws a snowball at the car. The snowball hits the windshield. The driver has to stop, get out, and clean the windshield.

7. A. It's wintertime. Roger is in his yard playing with another boy. He throws a snowball at his friend. But his hand slips. The snowball

goes over the fence and hits a car that's coming down the street. It hits the windshield and the driver can't see where he is going. He runs right into a telephone pole and smashes up the front of the car.

8. A. One day, Linda goes to school. Her mother says, "Bring your raincoat." But Linda is in such a hurry that she forgets to bring her raincoat. That afternoon, it rains very hard when she's coming home. Her dress gets all wet, and she gets a cold, and has to stay out of school three days.

8. I. One day May goes to school. Her mother says, "Bring your raincoat." But May doesn't like to wear her raincoat, so she leaves it at home. That afternoon, it rains a little when she's coming home. Her dress gets a little bit wet. But it stops very quickly, the sun comes out, and her dress dries right away.

9. A. Barbara decides she'll clean her room so that her mother won't have so much work to do. Barbara puts her big doll in the toy box and then she puts the wooden blocks in too. Barbara didn't think that the blocks would hurt the doll, but when she put the blocks in the toy box, they fell on the pretty doll and broke it all to pieces.

9. I. Amy wants to watch television, but her mother says, "Turn off the TV, Amy because I want to talk with my friend here." Amy doesn't like that, because she can't watch her favorite program. So when her mother leaves the room, Amy picks up a doll and drops it on the floor. The doll's finger breaks off.

10. I. Ted is walking through the park eating a banana. When he finishes, he throws the banana peel behind him because he figures it's too far to walk over to the trash can. A man comes walking behind Ted and starts to slip on the banana peel. But he doesn't fall; he gets his balance again and stays standing up.

10. A. Reggie is running through the park to play marbles with his friend. As he's running, a marble falls out of his bag. He doesn't see it because it falls behind him. Along comes a man behind Reggie, and slips on the marble. He falls down and gets a cut on his head.

11. I. John is at supper. He's eaten all his food except the potatoes. His mother says, "If you don't eat your potatoes, you can't have any desert. So when his father and mother are busy talking and they're not looking, John pushes his plate and it knocks over the salt shaker and a little salt spills.

11. A. Peter and his parents are at supper. His mother needs some sugar so Peter says, "I'll pass it to you, Mother." As Peter reaches quickly for the sugar bowl, his hand hits the bottle of milk, and the milk spills all over the table.

12. I. Kate is getting tired of sitting and waiting while her mother is shopping. So Kate runs up and down the aisles in the grocery store. The clerk tells her, "Slow down! Be more careful!" But Kate doesn't pay much attention to him. She starts to run again when he isn't looking. As she turns the corner, her hand hits a box of Kleenex and it falls to the floor.

12. A. Pam goes grocery shopping with her mother. Her mother says, "Oh I forgot the ketchup and it's way at the back of the store!" Pam says, "I'll get it for you, mother." As she's taking the bottle off the shelf, she doesn't lift the bottle high enough and two bottles of ketchup fall off the shelf and break. The ketchup spills all over the floor.

APPENDIX B

Materials and Supplimentary Information for Experiment:

The Relationship Between Type of Sanction,

Story Content and Children's Judgments

Which are Independent of Sanction

PRETEST QUESTIONS

1. What do you think would happen to a child if he/she did something really good? What would his mother give him/her?

2. What do you think would happen to a child if he/she did something really bad? What would his mother do?

SAMPLE STORY

A little child played store with his/her brother and sister. His/her mother gave him/her a good surprise. Was playing store good or bad? Why? Why did he/she get a surprise?

I. NR (Neutral Act, Reward)

1. A little child was sitting in his/her room reading a book. His/her mother came in and gave him/her a good surprise. Do you think reading book was good or bad? Why? Why did he/she get a surprise?

2. A little child was sitting on the floor stacking his/her blocks. His/her mother gave him/her a good surprise. Was stacking the blocks good or bad? Why? Why did the boy/girl get a surprise?

3. A little child went to his/her room and played with his/her toys. His/her mother came in and gave him/her a good surprise. Was playing with the toys in his/her room good or bad? Why? Why did she/her get a surprise?

II. NP (Neutral Act, Punishment)

4. A little child was playing in his/her room with his/her cat. His/her mother came in and got mad, and spanked him/her. Was playing with his/her cat good or bad? Why? Why did she get spanked?

5. A little child was riding his/her trike outside with his/her friends. His/her mother came outside, got mad, and spanked him/her. Was riding his/her trike with his/her friends good or bad? Why? Why did he/she get spanked?

6. A little child was coloring in his/her coloring book. His/her mother got mad and spanked him/her. Was coloring in his/her coloring book good or bad? Why? Why did he/she get spanked?

III. BR (Bad Act, Reward)

7. A little child pushed his/her baby sister down and made the baby cry. The mother gave the child a good surprise. Was pushing the baby down and making her cry good or bad? Why? Why did he/she get a surprise?"

8. A little child tore up his/her nice new book and his/her mother gave him/her a good surprise. Was tearing the book up bad or good? Why? Why did she/he get a surprise?

9. A little child scribbled with lipstick all over the bathroom walls. His/her mother gave him/her a good surprise. Was scribbling all over the bathroom walls good or bad? Why? Why did he/she get a surprise?

IV. BP (Bad Act, Punishment)

10. A little child opened a new package of cereal and dumped in on the floor. His/her mother got mad and spanked him/her. Was opening the cereal and dumping it on the floow good or bad? Why? Why did he/she get spanked?

11. A little child spit on his/her little brother. His/her mother got mad and spanked him/her. Was spitting on his/her little brother good or bad? Why? Why did the child get spanked?

12. A little child was all ready to go to a party with his/her mother with his/her new clothes on. He/she ran out in the mud and got all dirty. His/her mother got mad and spanked him/her. Was running out in the mud and getting dirty good or bad? Why? Why did he/she get spanked?

V. GR (Good Act, Reward)

13. A little child carried the groceries in for his/her mother. His/her mother gave him/her a good surprise. Was taking in the gorceries for his/her mother good or bad? Why? Why did he/she get a surprise?

14. A little child swept the floow for his/her mother. His/her mother gave her/him a good surprise. Was sweeping the floor good or bad? Why? Why did the child get a surprise?

15. A little child helped his/her mother fold the clothes. His/her mother gave him/her a good surprise. Was folding the clothes good or bad? Why? Why did he/she get a surprise?

VI. GP (Good Act, Punishment)

16. A little child was tending his/her baby brother for his/her mother. His/her mother got mad and spanked him/her. Was tending the baby brother good or bad? Why? Why did he/she get spanked?

17. A little child ate his/her supper all gone. His/her mother got mad and spanked him/her. Was eating his/her supper all gone good or bad? Why? Why did he/she get spanked?

18. A little child picked up all his/her toys and cleaned his/her room. His/her mother got mad and spanked him/her. Was picking up the toys and cleaning the room good or bad? Why? Why did he/she get spanked?

TABLE 23

ANALYSIS OF VARIANCE SUMMARY TABLE
FOR JUDGMENTS OF GOOD

SOURCE	df	MS	F
A (age)	1	2.29	4.16*
B (subjects)	30	0.68	1.24
C (sanction)	1	53.13	96.60**
AC	1	2.75	2.58
BC	30	1.06	1.93
D (content)	2	70.39	127.98**
AD	2	1.31	1.98
BD	60	0.69	1.18
CD	2	3.64	6.63**
ACD - (within)	2	.58	-
BCD - (between)	60	.55	-
Error	0	0.00	

* $p < .05$

** $p < .01$

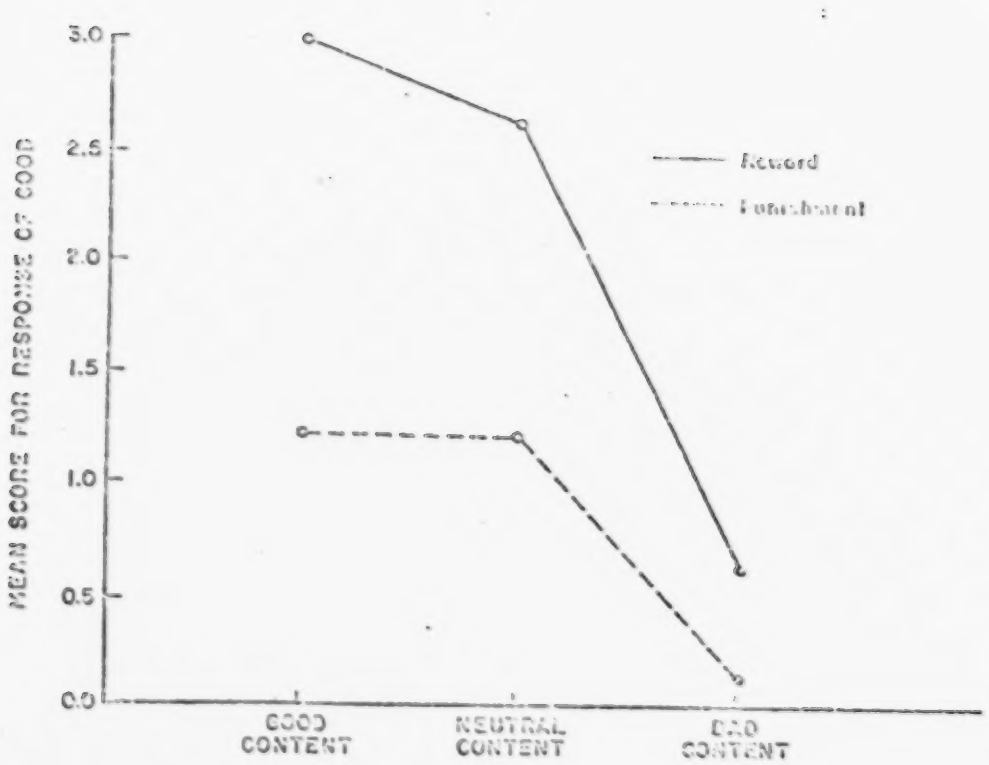


Figure 5. The Mean Number of Responses of Good for the Three Types of Story Content and Two Kinds of Story Sanction

APPENDIX C

Materials and Supplimentary Information for Experiment:

The Effect of Training Children

To Make Moral Judgments

That are Independent of Sanctions

PRETEST STORIES

1. A little child was practicing his violin. His mother got mad and spanked him. Was practicing the violin good or bad? Why was that good/bad? Why did his mother get mad and spank him?

2. A little child was tending the baby for his/her mother. His/her mother got mad and spanked him/her. Was tending the baby good or bad? Why was that good/bad? Why did the mother get mad and span the child?

3. A little child was sweeping the floor for his/her mother. His/her mother got mad and spanked him/her. Was sweeping the floor good or bad? Why was that good/bar? Why did the mother get mad and spank the child?

4. A little child was watching TV quiety while his/her mother was getting supper. His/her mother got mad and spanked him/her. Was watching TV quiety good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

5. A little child ate his supper all gone. His/her mother got mad and spanked him/her. Was eating his/her supper all gone good or bad? Why was that good or bad? Why ddid the mother get mad and spank the child?

6. A little child dressed up like an Indian and chopped a hole in his/her mother's table with a hatchet. His/her mother got mad and spanked him/her. Was chopping the hole in the table good or bad? Why was that good/bad? Why did the mother get mad and spank the child?

7. A little child took the swing away from his/her friend so he/she would swing. His/her mother got mad and spanked him/her. Was taking the swing away from his/her friend good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

8. A littlechild jumped on the table. His/her mother got mad and spanked him/her. Was jumping on the table good or bad? Why was that good/bad? Why did the mother get mad and spank the child?

9. A little child poured milk all over the table. His/her mother got mad and spanked him/her. Was pouring milk all over the table good or bad? Why was that good/bad? Why did the mother get mad and spanked the child?

10. A little child scribbled with crayon all over the walls. His/her mother got mad and spanked him/her. Was scribbling all over the walls with crayon good or bad? Why was that bad/good? Why did the mother get mad and spank him/her?

POSTTEST STORIES

1. A little child was hanging out the clothes for his/her mother. His/her mother got mad and spanked him/her. Was hanging out the clothes good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

2. A little child was dusting the furniture for his/her mother. His/her mother got mad and spanked him/her. Was dusting the furniture good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

3. A little child was sitting quietly coloring a picture. His/her mother got mad and spanked him/her. Was sitting quietly coloring a picture good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

4. A litttle child was sitting quietly holding his/her doll. His/her mother got mad and spanked him/her. Was sitting quietly holding his/her doll good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

5. A little child was picking up his/her toys. His/her mother got mad and spanked him/her. Was picking up his/her toys good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

6. A little child took some matches out of the house and started a fire. His/her mother got mad and spanked him/her. Was taking some matches out of the house and starting a fire good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

7. A little child wiped his/her muddy hands all over his/her mother's clean sheets. His/her mother got mad and spanked him/her. Was wiping his/her muddy hands all over his/her mother's clean sheet good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

8. A little child jumped on the bed and threw his/her pillow and wouldn't go to sleep. His/her mother got mad and spanked him/her. Was jumping on the bed and throwing his/her pillow and not going to sleep good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

9. A little child threw snowball at his/her friend. His/her mother get mad and spanked him/her. Was throwing snowballs at his/her friend good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

10. A little child was painting and painted all over the floors and walls. His/her mother got mad and spanked him/her. Was painting all over the floors and walls good or bad? Why was that good/bad? Why did the mother get mad and spank him/her?

TRAINING STORIES FOR THE
VERBAL DISCRIMINATION GROUP

1. A little girl cleaned up the yard. She picked up all the trash and put it in a corner of the yard. Her mother got mad and spanked her. Was cleaning up the yard good or bad?

2. A little boy ran out in the rain in his new Sunday shoes. He ran in a puddle and got his shoes all muddy. His mother got mad and spanked him. Was running out in the rain and getting his shoes all muddy good or bad?

3. This little girl was putting valentines in the boxes at school. The other children were running around and making a lot of noise. The teacher punished the whole class and wouldn't let them go outside. Was putting valentines in the boxes at school good or bad?

4. This little boy was one of the kids in the school making a noise by blowing on a horn. The teacher didn't let any of the kids go outside. Was blowing the horn in the school room good or bad?

5. This little girl cleaned up her room and put away her shoes. Her mother got mad and spanked her. Was cleaning up her room and putting away her shoes good or bad?

6. This little boy went fishing to catch some fish for his family's supper because there were out camping. He got his line all tangled up and the fish hook stuck in his finger. That really hurt his finger and he started to cry. He wished he hadn't ever gone fishing. Was going fishing and catching fish for his family good or bad?

7. This little boy went riding on his horse alone when he was supposed to ride with someone else. His mother got mad and spanked him. Was riding the horse alone good or bad?

8. This little girl tied her shoes all by herself. Her mother got mad and spanked her. Was tying her shoes good or bad?

9. This little boy was being mean to the ants and wouldn't let them out of the jar. Then the ants started to die in the jar. His mother got mad and spanked him. Was keeping the ants in the jar good or bad?

10. This little boy was playing baseball. He threw the ball through the window and broke it all to pieces. His mother got mad and spanked him. Was throwing the ball through the window good or bad?

11. This little girl picked all her mommy's pretty flowers and threw them on the ground because she was mad. Her mother got mad and spanked her. Was picking the flowers and throwing them on the ground good or bad?

13. This little girl was playing with her ball in the street. Her mother got mad and spanked her. Was playing in the street good or bad?

14. This little girl picked up all the toys in her room. Her mother got mad and spanked her. Was picking up the toys in her room good or bad?

15. This little girl was painting a pretty picture. Her mother got mad and spanked her. Was painting the pretty picture good or bad?

16. This little boy tied his friend up in a tree. His mother got mad and spanked him. Was tying his friend in the tree good or bad?

17. This little girl was feeding the kittens some nice, warm milk. One of the kittens put up it's paw and scratched the little girl. It hurt and she cried. Was feeding the kittens the warm milk goor or bad?

18. This little girl was feeling sorry for herself so she sat in her room and wouldn't come to eat supper. Her mother got mad and spanked her. Was sitting in her room and not going to supper good or bad?

19. This little boy was planting a garden and helping plant some pretty flowers. His mother got mad and spanked him. Was planting the garden and helping plant some pretty flowers good or bad?

20. This little boy took his little brother and went sleigh riding. As they were going down the hill, they hit a big rock and they both fell off the sleigh. They both got hurt real bad and started to cry. Was going sleigh riding with his little brother good or bad?

21. This little boy got into the paint when he wasn't supposed to and painted all over the walls and made a big mess. His mother got mad and spanked him. Was painting all over the walls good or bad?

22. This little boy was staking his blocks and playing quietly in his room. His mother got mad and spanked him. Was stacking his blocks and playing quietly in his room good or bad?

23. This little boy was coloring in his coloring books. His mother got mad and spanked him. Was coloring in his coloring book good or bad?

24. This little girl was playing dress-up in her mommy's new dress. Her mother got mad and spanked her. Was playing dress-up in her mommy's new dres good or bad?

25, This little boy was being nice to his dog and playing ball with him. The dog jumped up and bit his leg. Was playing ball with the dog good or bad?

26, This little girl was watering her mother's flowers. Her mother got mad and spanked her. Was watering the flowers good or bad?

27. This little boy was playing Indian with his friends. He decided that he wouldn't share anything with them. His mother got mad and spanked him. Was not sharing with his friends good or bad?

28. This little boy was swinging in his swing. His mother got mad and spanked him. Was swinging in the swing good or bad?

29. This little boy was mopping up a glass of water that he spilled. His mother got mad and spanked him. Was mopping up the spilled water good or bad?

30. This little girl was sitting quietly reading a book. Her mother got mad and spanked her. Was sitting quietly reading a book good or bad?

31. A little boy was being mean to his dog and was hitting the dog real hard. The dog barked and bit the boy. Was being mean and hitting the dog good or bad?

32. This little girl shared her train with her little brother. Her mother got mad and spanked her. Was sharing the train with her little brother good or bad?

33. These little boys were playing together. The one little boy grabbed the other boy's pole and it made the boy fall down. His mother got mad and spanked him. Was grabbing the pole good or bad?

34, This little boy pushed the other little boy in the swimming pool. His mother got mad and spanked him. Was pushing his friend in the swimming pool good or bad?

35, These little boys were playing nicely and sharing the ball. The mother got mad and spanked them. Was sharing and playing with the ball good or bad?

36. These two little kids were swimming. Their mother got mad and spanked them. Was swimming good or bad?

37. This little boy squirted his sister with the hose. His mother got mad and spanked him. Was squirting his sister with the hose good or bad?

38. This little boy pulled the plug out of his daddy's razor. His mother got mad and spanked him. Was pulling the plug out of his daddy's razor good or bad?

39. This little girl mopped the kitchen floow for her mommy. Her mother got mad and spanked her. Was mopping the floor good or bad?

40. This little girl tracked mud in the house. Her mother got mad and spanked her. Was tracking mud in the house good or bad?

41. This little girl splashed water all over the bathroom floor. Her mother got mad and spanked her. Was splashing water all over the floor

bad?

42. This little girl was swinging in a swing. Her mother got mad and spanked her. Was swinging in the swing good or bad?

43. These little boys were playing cowboys together. One boy was pulling the other boy in a wagon. His mother got mad and spanked him. Was pulling his friend in the wagon good or bad?

44. This little girl threw her doll on the floor and broke it all to pieces. She cried. Her mother got mad and spanked her. Was throwing the doll on the floor and breaking it good or bad?

45. This little girl was coloring her coloring book. Her mother got mad and spanked her. Was coloring in the coloring book good or bad?

46. This little boy was cutting out a bear he drew on some paper. His mother got mad and spanked him. Wascutting out the bear good or bad?

47. This little boy pulled his sister's braids and made her cry. His mother got mad and spanked him. Was pulling his sister's braids good or bad?

48. These children were playing London Bridges Fall Down. One little girl tripped and fell down and cut her knee. She cried because it hurt very badly. Was playing London Bridges good or bad?

49. These children were playing house. The little boy got mad so he took the little girl's doll away from her and wouldn't give it back. His mother got mad and spanked him. Was taking the doll away from the girl good or bad?

50. This little girl put on her mother's apron and cleaned up the kitchen. Her mother got mad and spanked her. Was cleaning up the kitchen good or bad?

51. This little boy sneaked in the house to get some cookies. He knocked over the cookie jar and a glass of water and they broke. His mother got mad and spanked him. Was sneaking in to get some cookies and breaking the cookie jar and glass good or bad?

52. These children were coloring in their coloring book. Their mother got mad and spanked them. Was coloring in the coloring book good or bad?

53. This little girl was playing dress up in her mother's old clothes. Her mother got mad and spanked her. Was playing dress-up good or bad?

54. These children were fighting and were both trying to pull the train away from the other one. Their mother got mad and spanked them. Was fighting and pulling the train good or bad?

55. This little boy was being nice to the dog and petting it. The dog bit the boy's hand. Was being nice and petting the dog good or bad?

56. These kids were walking quietly in Sunday School. Their teacher got mad at them. Was walking quietly good or bad?

57. This little boy took his brother's stilts when his brother didn't know. His mother got mad and spanked him. Was taking the stilts good or bad?

58. This little girl was washing her facr and brushing her teeth. Her mother got mad and spanked hér. Was washing her face and brushing her teeht good or bad?

59. This little girl was washing the dishes for her mother. Her mother got mad and spanked her. Was washing the dishes for her mother good or bad?

60. This little girl yelled at her mother and called her "stupid". Her mother got mad and spanked her. Was yelling her mother and calling her "stupid" good or bad?

TRAINING STORIES FOR THE
DISCUSSION GROUP

1. A little girl cleaned up the yard. She picked up all the trash and put it in a corner of the yard. Her mother got mad and spanked her. Was cleaning up the yard good or bad? Why was it good or bad? Why did the mother spank her?

2. A little boy ran out in the rain in his new Sunday shoes. He ran in a puddle and got his shoes all muddy. His mother got mad and spanked him. Was running out in the rain and getting his shoes all muddy good or bad? Why was it good or bad? Why did his mother spank him?

3. This little girl was putting valentines in the boxes at school. The other children were running around and making a lot of noise. The teacher punished the whole class and wouldn't let them go outside. Was putting the valentinves in the boxes at school good or bad? Why was it good or bad? Why did the teacher punish the whole class?

4. This little boy was one of the kids in school making a noise by blowing on a horn. The teacher didn't let any of the kids go outside. Was blowing the horn in the school room good or bad? Why was it good or bad? Why wouldn't the teacher let any of the kids go outside?

5. This little girl cleaned up her room and put away her shoes. Her mother got mad and spanked her. Was cleaning up her room and putting away her shoes good or bad? Why was it good or bad? Why did her mother spank her?

6. This little boy went fishing to catch some fish for his family's supper because they were out camping. He got his line all tangled up and the fish hook stuck in his finger. That really hurt his finger and he started to cry. He wished hadn't ever gone fishing. Was going fishing and catching fish for his family good or bad? Why was it good or bad? Why did his line get all tangled up and the fish hook stuck in his finger?

7. This little boy went riding on his horse alone when he was supposed to ride with someoneelse. His mother got mad and spanked him? Was riding the horse alone good or bad? Why was it good or bad? Why did his mother spank him?

8. This little girl tied her shoes all by herself. Her mother got mad and spanked her. Was tying her shoes good or bad? Why was it good or bad? Why did her mother spank her?

9. This little boy was being mean to the ants and wouldn't let them out of the jar. Then the ants started to die in the jar. His mother got mad and spanked him. Was keeping the ants in the jar good or bad? Why was it good or bad? Why did his mother spank him?

10. This little boy was playing baseball. He threw the ball through the window and broke it all to pieces. His mother got mad and spanked him. Was throwing the ball through the window good or bad? Why was it good or bad? Why did his mother spank him?

11. This little girl picked all her mommy's pretty flowers and threw them on the ground because she was mad. Her mother got mad and spanked her. Was picking the flowers and throwing them on the ground good or bad? Why was it good or bad? Why did her mother spank her?

12. This little girl was picking some flowers to give to a sick, old lady. Her mother got mad and spanked her. Was picking the flowers to give the sick, old lady good or bad? Why was it good or bad? Why did her mother spank her?

13. This little girl was playing with her ball in the street. Her mother got mad and spanked her. Was playing in the street good or bad? Why was it good or bad? Why did her mother spank her?

14. This little girl picked up all the toys in her room. Her mother got mad and spanked her. Was picking up the toys in her room good or bad? Why was it good or bad? Why did her mother spank her?

15. This little girl was painting a pretty picture. Her mother got mad and spanked her. Was painting the pretty picture good or bad?

16. This little boy tied his friend up in a tree. His mother got mad and spanked him. Was tying his friend in the tree good or bad? Why was it good or bad? Why did his mother spank him?

17. This little girl was feeding the kittens some nice, warm milk. One of the kittens put up it's paw and scratched the little girl. It hurt and she cried. Was feeding the kittens the warm milk good or bad? Why was it good or bad? Why did the kitten scratch the little girl?

18. This little girl was feeling sorry for herself so she sat in her room and wouldn't come out to eat supper. Her mother got mad and spanked her. Was sitting in her room and got going to supper good or bad? Why was it good or bad? Why did his mother spank her?

19. This little boy was planting a garden and helping plant some pretty flowers. His mother got mad and spanked him. Was planting the garden and helping plant some pretty flowers good or bad? Why was it good or bad? Why did his mother spank him?

20. This little boy took his little brother and went sleigh riding. As they were going down the hill, they hit a big rock and they both fell off the sleigh. They both got hurt real bad and started to cry. Was going sleigh riding with his little brother good or bad? Why was it good or bad? Why did they hit a rock and fall off the sleigh?

21. This little boy got into the paint when he wasn't supposed to and painted all over the walls and made a big mess. His mother got mad and spanked him. Was painting all over the walls good or bad? Why was it good or bad? Why did his mother spank him?

22. This little boy was stacking his blocks and playing quietly in his room. His mother got mad and spanked him. Was stacking his blocks and playing quietly in his room good or bad? Why was it good or bad? Why did his mother spank him?

23. This little boy was coloring in his coloring books. His mother got mad and spanked him. Was coloring his coloring book good or bad? Why was it good or bad? Why did his mother spank him?

24. This little girl was playing dress-up in her mommy's new dress. Her mother got mad and spanked her. Was playing dress-up in her mommy's new dress good or bad? Why was it good or bad? Why did her mother spank her?

25. This little boy was being nice to his dog and playing ball with him. The dog jumped up and bit his leg. Was playing ball with the dog good or bad? Why was it good or bad? Why did the dog bite his leg?

26. This little girl was watering her mother's flowers. Her mother got mad and spanked her. Was watering the flowers good or bad? Why was it good or bad? Why did her mother spank her?

27. This little boy was playing Indian with his friends. He decided that he wouldn't share anything with them. His mother got mad and spanked him. Was not sharing with his friends good or bad? Why was it good or bad? Why did his mother spank him?

28. This little boy was swinging in his swing. His mother got mad and spanked him. Was swinging in the swing good or bad? Why was it good or bad? Why did his mother spank him?

29. This little boy was mopping up a glass of water that he spilled. His mother got mad and spanked him. Was mopping up the spilled water good or bad? Why was it good or bad? Why did his mother spank him?

30. This little girl was sitting quietly reading a book. Her mother got mad and spanked her. Was sitting quietly reading a book good or bad? Why was it good or bad? Why did her mother spank her?

31. A little boy was being mean to this dog and was hitting the dog real hard. The dog barked and bit the boy. Was being mean and hitting the dog good or bad? Why was it good or bad? Why did the dog bite the boy?

32. This little girl shared her trained with her little brother. Her mother got mad and spanked her. Was sharing the training with her little brother good or bad? Why was it good or bad? Why did her mother spank her?

33. These little boys were playing together. The one little boy grabbed the other boy's pole and it made the boy fall down. His mother got mad and spanked him. Was grabbing the pole good or bad? Why was it good or bad? Why did his mother spank him?

34. This little boy pushed the other little boy in the swimming pool. His mother got mad and spanked him. Was pushing his friend in the swimming pool good or bad? Why was it good or bad? Why did his mother spank him?

35. These little boys were playing nicely and sharing the ball. The mother got mad and spanked them. Was sharing and playing with the ball good or bad? Why was it good or bad? Why did the mother spank them?

36. These two little kids were swimming. Their mother got mad and spanked them. Was swimming good or bad? Why was it good or bad? Why did the mother spank them?

37. This little boy squirted his sister with the hose. His mother got mad and spanked him. Was squirting his sister with the hose good or bad? Why was it good or bad? Why did the mother spank him?

38. This little boy pulled the plug out of his daddy's razor. His mother got mad and spanked him. Was pulling plug out of his daddy's razor good or bad? Why was it good or bad? Why did his mother spank him?

39. This little girl mopped the kitchen floor for her mommy. Her mother got mad and spanked her. Was mopping the floor good or bad? Why was it good or bad? Why did her mother spank her?

40. This little girl tracked mud in the house. Her mother got mad and spanked her. Was tracking mud in the house good or bad? Why was it good or bad? Why did her mother spank her?

41. This little giral splashed water all over the bathroom floor. Her mother got mad and spanked her. Was splashing water all over the floor good or bad? Why was it good or bad? Why did her mother spank her?

42. This little girl was swinging in a swing. Her mother got mad and spanked her. Was swinging in the swing good or bad? Why was it good or bad? Why did her mother spank her?

43. These little boys were playing cowboys together. One boy was pulling the other boy in a wagon. His mother got mad and spanked him. Was pulling his friend in the wagon good or bad? Why was it good or bad? Why did his mother spank him?

44. This little girl threw her doll on the floor and broke it all to piece. She cried. Her mother got mad and spanked her. Was throwing the

doll on the floor and breaking it good or bad? Why was it good or bad? Why did her mother spank her?

45. This little girl was coloring her coloring book. Her mother got mad and spanked her. Was coloring in the coloring book good or bad? Why was it good or bad? Why did her mother spank her?

46. This little boy was cutting out a bear he drew on some paper. His mother got mad and spanked him. Was cutting out the bear good or bad? Why was it good or bad? Why did his mother spank him?

47. This little boy pulled his sister's braids and made her cry. His mother got mad and spanked him. Was pulling his sister's braids good or bad? Why was it bad or good? Why did his mother spank him?

48. These children were playing London Bridges Falling Down. One little girl tripped and fell down and cut her knee. She cried because it hurt very badly. Was playing London Bridges good or bad? Why was it good or bad? Why did she fall down and cut her knee?

49. These children were playing house. The little boy got mad so he took the little girl's doll away from her and wouldn't give it back. His mother got mad and spanked him. Was taking the doll away from the girl good or bad? Why was it good or bad? Why did his mother spanked him?

50. This little girl put on her mother's apron and cleaned up the kitchen. Her mother got mad and spanked her. Was cleaning up the kitchen good or bad? Why was it good or bad? Why did her mother spank her?

51. This little boy sneaked in the house to get some cookies. He knocked over the cookie jar and a glass of water and they broke. His mother got mad and spanked him. Was sneaking in to get some cookies and breaking the cookie jar and glass good or bad? Why was it good or bad? Why did his mother spank him?

52. These children were coloring in their coloring book. Their mother got mad and spanked them. Was coloring in the coloring book good or bad? Why was it good or bad? Why did the mother spank them?

53. This little girl was playing dress-up in her mother's old clothes. Her mother got mad and spanked her. Was playing dress-up good or bad? Why was it good or bad? Why did her mother spank her?

54. These children were fighting and were both trying to pull the train away from the other one. Their mother got mad and spanked them. Was fighting and pulling the train good or bad? Why was it good or bad? Why did the mother spank them?

55. This little boy was being nice to the dog and petting it. The dog bit the boy's hand. Was being nice and petting the dog good or bad? Why

was it good or bad? Why did the dog bite the boy's hand?

56. These kids were walking quietly in Sunday School. Their teacher got mad at them. Was walking quietly good or bad? Why was it good or bad? Why did the teacher get mad at them?

57. This little boy took his brother's stilts when his brother didn't know. His mother got mad and spanked him. Was taking the stilts good or bad? Why was it good or bad? Why did his mother spank him?

58. This little girl was washing her face and brushing her teeth. Her mother got mad and spanked her. Was washing her face and brushing her teeth good or bad? Why was it good or bad? Why did her mother spank her?

59. This little girl was washing the dishes for her mother. Her mother got mad and spanked her. Was washing the dishes for her mother good or bad? Why was it good or bad? Why did her mother spank her?

60. This little girl yelled at her mother and called her "stupid". Her mother got mad and spanked her. Was yelling at her mother and calling her "stupid" good or bad? Why was it good or bad? Why did her mother spank her?

Additional
Independence of Sanctions Stories

1. A little boy was practicing his violin. His mother got mad and spanked him. Was practicing the violin good or bad? Why was that good/bad? Why did the mother get mad and spank him?

2. A little girl was tending the baby for her mother. Her mother got mad and spanked her. Was tending the baby good or bad? Why was that good/bad? Why did the mother get mad and spank her?

3. A little boy scribbled with crayon all over the walls. His mother got mad and spanked him. Was scribbling all over the wall with crayon good or bad? Why was that good/bad? Why did the mother get mad and spank him?

4. A little girl was sweeping the floor for her mother. Her mother got mad and spanked her. Was sweeping the floor good or bad? Why did the mother get mad and spank her?

5. A little boy was watching TV quietly while his mother was getting supper. His mother got mad and spanked him. Was watching TV good or bad? Why did the mother get mad and spank him?

6. A little girl ate her supper all gone. Her mother got mad and spanked her. Was eating her supper all gone good or bad? Why did the mother get mad and spank the child?

Additional Stories

K1. A little girl washed the dishes for her mother. Her mother got mad and spanked her. Is washing the dishes good or bad? Why did her mommy spank her?

K2. A little boy was playing quietly in his room. His mommy got mad and spanked him. Is playing quietly in his room good or bad? Why did his mommy spank him?

K3. A little girl very carefully did the dusting for her mother. Mommy got mad and spanked her. Is dusting carefully good or bad? Why did her mommy spank her?

K4. A little boy raked the leaves for his daddy. Daddy got mad and spanked him. Is raking the leaves good or bad? Why did his daddy spank him?

K5. A little boy came straight from school. His mommy got mad and spanked him. Is coming straight home from school good or bad? Why did his mommy spank him?

K6. A little girl set the table for her mother. Her mother got mad and spanked her. Is setting the table good or bad? Why did his mommy spank her?

APPENDIX D

Materials and Supplimentary Information for Experiment :

The Effect of Training Four- and Five-year-old

Children to Make Moral Judgments

Independent of Sanctions

PRETEST STORY QUESTIONS

1. A little child was practicing his violin. His/her mother got mad and spanked him/her. Was practicing the violin good or bad?

2. A little child was out in the backyard. He/she wiped his/her muddy hands on mother's clean sheets on the clothes line. His/her mother got mad and spanked him/her. Was wiping his/her muddy hands on mother/s clean sheets good or bad?

3. A little child jumped on his bed, threw his pillow and wouldn't go to sleep. His/her mother got mad and spanked him/her. Was jumping on the bed, throwing the pillow and not going to sleep good or bad?

4. A little child was dusting the furniture for his/her mother. His/her mother got mad and spanked him/her. Was dusting the furniture good or bad?

5. A little child scribbled with crayon all over the walls. His/her mother got mad and spanked him/her. Was scribbling all over the walls with crayons good or bad?

6. A little child took some matches out of the house and started a fire. His/her mother got mad and spanked him/her. Was taking the matches out of the house and starting the fire good or bad?

7. A little child was taking care of his/her little brother for his/her mother. His/her mother got mad and spanked him/her. Was taking care of his/her little brother good or bad?

8. A little child was sitting quietly coloring a picture. His/her mother got mad and spanked him/her. Was sitting quietly and coloring the picture good or bad?

9. A little child was sweeping the floor and picking up the trash for his/her mother. His/her mother got mad and spanked him/her. Was sweeping the floor and picking up the trash good or bad?

10. A little child threw paint on the floors and walls. His/her mother got mad and spanked him/her. Was throwing the paint on the floor and walls good or bad?

SCORE SHEET

CHILD _____ DATE _____

AGE _____ TIME _____

EXPERIMENTER _____ SCORER _____

SEX _____

STORY-ACT	TYPE	RESPONSE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Special Comments: _____

_____

Code: 1 = good response

0 = bad response

Pretest _____ Posttest #1 _____ Posttest #2 _____

Score: _____

TRAINING 1

STORY-QUESTIONS

1. A little child was washing the dishes for his/her mother. His/her mother got mad and spanked him/her. Was washing the dishes for his/her mother good or bad?

2. A little child was making noise in the classroom by blowing a horn when he/she was supposed to be listening to the teacher. The teacher got mad and spanked him/her. Was blowing the horn in the classroom when she/he was supposed to listen good or bad?

3. A little child ran out into the rain in his/her new Sunday shoes. He/she ran in a puddle and got his/her shoes all muddy. His/her mother got mad and spanked him/her. Was running out in the rain and getting his/her shoes muddy good or bad?

4. A little child took his/her brother's stilts away from him and knocked him down. His/her mother got mad and spanked him/her. Was taking his/her brother's stilts away and knocking him/her down good or bad?

5. A little child was washing his/her face and brushing his/her teeth after breakfast. His/her mother got mad and spanked him/her. Was washing his/her face and brushing his/her teeth good or bad?

6. A little child was swinging in his/her swing. His/her mother got mad and spanked him/her. Was swinging in the swing good or bad?

7. A little child was playing baseball and threw the ball and broke a window. His/her mother got mad and spanked him/her. Was throwing the ball through a window good or bad?

8. A little child was being mean to his/her dog and hitting it with his/her hand. His/her mother got mad and spanked him/her. Was being mean to the dog and hitting it with his/her hand good or bad?

9. A little child was helping his/her mother pick some flowers to give to a sick friend. His/her mother got mad and spanked him/her. Was helping his/her mother pick flowers to give to a sick friend good or bad?

10. A little child was sharing his/her toy train. His/her mother got mad and spanked him/her. Was sharing the toy train good or bad?

STORY-QUESTIONS

1. A little child jumped on the kitchen table and broke a glass. His/her mother got mad and spanked him/her. Was jumping on the table and breaking the glass good or bad?

2. A little child was playing Indian with his/her friends. He/she took his/her mother's sharp knives out of the kitchen to play in the dirt. His/her mother got mad and spanked him/her. Was playing Indian with the sharp knives from the kitchen good or bad?

3. A little child was playing with his/her plastic balls. When he/she was finished he/she put all of the plastic balls in the toy chest where they belonged. His/her mother got mad and spanked him/her. Was putting the plastic balls back in the toy chest where they belonged good or bad?

4. A little child was playing quietly in the backyard. His/her mother got mad and spanked him/her. Was playing quietly good or bad?

5. A little child got mad at his/her mother and wouldn't come to supper. He/she sat in his/her bedroom and yelled. His/her mother got mad and spanked him/her. Was sitting in his/her room and yelling good or bad?

6. A little child was sitting quietly and playing with his/her doll. His/her mother got mad and spanked him/her. Was sitting quietly and playing with his/her doll good or bad?

7. A little child was painting a picture with his paints on a piece of paper. His/her mother got mad and spanked him/her. Was painting with his/her paints on the paper good or bad?

8. A little child grabbed a toy away from his/her sister and made her cry. His/her mother got made and spanked him/her. Was grabbing the toy away from his/her sister good or bad?

9. A little child was sharing his/her coloring book and crayons with a friend. His/her mother got mad and spanked him/her. Was sharing the coloring book and crayons good or bad?

10. A little child poured milk all over the table. His/her mother got mad and spanked him/her. Was pouring milk all over the table good or bad?

STORY-QUESTIONS

1. A little child was helping his/her mother water the flowers. His/her mother got mad and spanked him/her. Was helping his/her mother water the flowers good or bad?

2. A little child threw his/her toy on the floor and broke it into pieces. His/her mother got mad and spanked him/her. Was throwing his/her toy on the floor and breaking it into pieces good or bad?

3. A little child helped his/her mother clean his/her floor and straighten his/her bedroom. His/her mother got mad and spanked him/her. Was helping his/her mother mop the floor and straighten the bedroom good or bad?

4. A little child was sitting quietly reading a book. His/her mother got mad and spanked him/her. Was sitting quietly reading a book good or bad?

5. A little child was taking a bath and squirted water all over the floor and walls. His/her mother got mad and spanked him/her. Was squirting water all over the walls and floor good or bad?

6. These children were playing together and sharing a wagon. Their mother got mad and spanked them. Was playing together and sharing their wagon good or bad?

7. A little child spilled paint all over the floor and then used his/her mother's good mop to clean it up. The paint got all over everything and ruined his/her mother/s good mop. His/her mother got mad and spanked him/her. Was spilling the paint and using his/her mother's good mop to clean it up with good or bad?

8. A little child was sitting quietly coloring in his/her coloring book. His/her mother got mad and spanked him/her. Was coloring quietly in his/her coloring book good or bad?

9. A little child was dressed up like an Indian. He/she chopped a hole in his/her mother's table with the hatchet. His/her mother got mad and spanked him/her. Was chopping the hole in the table good or bad?

10. A little child tracked mud into the house on his/her feet. His/her mother got mad and spanked him/her. Was tracking mud into the house on his/her feet good or bad?

TRAINING SESSION 4

STORY-QUESTIONS

1. A little child sneaked in the house to get some cookies. He/she knocked over the cookie jar and broke the jar. His/her mother got mad and spanked him/her. Was sneaking into the house, getting some cookies, and breaking the cookie jar good or bad?

2. A little child locked his/her sister in a play house and made her cry. His/her mother got mad and spanked him/her. Was locking his/her sister inside the play house and making her cry good or bad?

3. A little child was washing his/her hands and getting ready for dinner. His/her mother got mad and spanked him/her. Was washing his/her hands and getting ready for dinner good or bad?

4. A little child pulled his/her sister's braids and made her cry. His/her mother got mad and spanked him/her. Was pulling his/her sister's braids and making her cry good or bad?

5. A little child was sitting quietly cutting out some paper animals. His/her mother got mad and spanked him/her. Was sitting quiet and cutting out the paper animals good or bad?

6. A little child was helping his/her mother feed the little kittens some milk. His/her mother got mad and spanked him/her. Was helping his/her mother feed the kittens some milk good or bad?

7. A little child pushed another little child into a swimming pool and hurt him. His/her mother got mad and spanked him/her. Was pushing the child into the pool and hurting him/her good or bad?

8. A little child tied his/her shoes all by himself/herself and got ready for school. His/her mother got mad and spanked him/her. Was getting ready for school and tying his/her shoes good or bad?

9. A little child got mad at his/her mother and threw his/her toys on the floor and kicked them. His/her mother got mad and spanked him/her. Was getting mad and throwing his/her toys on the floor and kicking them good or bad?

10. A little child was helping his/her mother plant a garden. His/her mother got mad and spanked him/her. Was helping his/her mother plant a garden good or bad?

TRAINING SESSION 5

STORY-QUESTIONS

1. A little child squirted his/her sister with a hose and got her all wet. His/her mother got mad and spanked him/her. Was squirting his/her sister with the hose and getting him/her all wet good or bad?

2. A little child ate all of his supper and cleaned his plate. His/her mother got mad and spanked him/her. Was eating all of his supper good or bad?

3. Two children were eating dinner. One child drank both of the soda pops when the other child wasn't looking. His/her mother got mad and spanked him/her. Was drinking both of the soda pops when the other child wasn't looking good or bad?

4. Two little children were walking down the hall quietly at church. Their mother got mad and spanked them. Was walking quietly down the hall at church good or bad?

5. A little child was being nice to his/her dog and playing with it. His/her mother got mad and spanked him/her. Was playing with the dog good or bad?

6. A little child helped his/her mother make a valentine box, then he/she put the valentines in the box. His/her mother got mad and spanked him/her. Was helping his/her mother make the valentine box good or bad?

7. A little child climbed on the top of the kitchen drawers and took some candy from the shelves. His/her mother got mad and spanked him/her. Was climbing on the kitchen drawers and taking the candy good or bad?

8. A little child was sitting at his/her desk drawing a picture with his/her pencil and paper. His/her mother got mad and spanked him/her. Was sitting at the desk and drawing a picture with his/her pencil and paper good or bad?

9. A little child went out to the mail box and took the mail. He threw the mail in the trash can. His/her mother got mad and spanked him/her. Was taking the mail out of the box and throwing it in the trash can good or bad?

10. A little child took the ball away from his friend and made him cry. His/her mother got mad and spanked him/her. Was taking the ball away from his/her friend and making him cry good or bad?

POSTTEST #1

STORY-QUESTIONS

1. A little child wiped his muddy hands all over his/her mother's good towels. His/her mother got mad and spanked him. Was wiping his/her muddy hands on his/her mother's good towels good or bad?

2. Two little children took from the refrigerator candy, chicken, and soda pop. Their mother got mad and spanked them. Was getting into the refrigerator and eating the candy, chicken, and soda pop good or bad?

3. A little child was playing outside quietly. He/she was jumping rope in the backyard. His/her mother got mad and spanked her. Was jumping rope quietly in the backyard good or bad?

4. A little child was playing dressup with his/her play clothes in his/her bedroom. He/she was sharing her toys with his/her friend. His/her mother got mad and spanked him/her. Was sharing his/her toys with his/her friend good or bad?

5. A little child was outside playing in the snow. He/she made a hard snowball and threw it at a little child. He/she hit the little child in the face. His/her mother got mad and spanked him/her. Was throwing the snowball and hitting the little child in the face good or bad?

6. A little child helped his/her mother by feeding the dog. His/her mother got mad and spanked him/her. Was helping his/her mother feed the dog good or bad?

7. A little child cleaned up his/her bedroom, put away his/her toys, and swept the floor. His/her mother got mad and spanked him/her. Was cleaning up the bedroom, putting the toys away, and sweeping the room good or bad?

8. A little child was washing his/her hands in the bathroom. He/she decided to play in the water and squirted the water all over the floors and walls. His/her mother got mad and spanked him/her. Was

squirting the water all over the floors and walls good or bad?

9. A little child got ready for bed all by himself/herself and hung up all his/her clothes. His/her mother got mad and spanked him/her. Was getting ready for bed all by himself/herself and hanging up his/her clothes good or bad?

10. Two little children were playing together. One child tied his/her friend to a tree and left the child. His/her mother got mad and spanked him/her. Was tying his/her friend to the tree and leaving him/her good or bad?

POSTTEST #2

STORY-QUESTIONS

1. A little child ate all of his vegetables for dinner. His/her mother got mad at him/her and spanked him/her. Was eating all of the vegetables at dinner good or bad?

2. A little child pushed his/her sister down on the sidewalk and stepped on her fingers. His/her mother got mad and spanked him/her. Was pushing his/her little sister down and stepping on her fingers good or bad?

3. A little child ran out into the street and started to play with his/her ball. His/her mother got mad and spanked him/her. Was playing with his/her ball in the middle of the street good or bad?

4. A little child helped his/her mother rake the leaves off the lawn. His/her mother got mad and spanked him/her. Was helping his/her mother rake the leaves off the lawn good or bad?

5. A little child shared his/her story book with a friend. His/her mother got mad and spanked him/her. Was sharing the story book with a friend good or bad?

6. Two little children were sitting in church. One little child climbed under the chair and started to make funny animal noises. The teacher got mad and spanked him/her. Was climbing under the chair and making funny noises in church good or bad?

7. A little child drew with crayons all over the walls and windows in his/her bedroom. His/her mother got mad and spanked him/her. Was drawing with crayons all over his/her walls and windows in his/her bedroom good or bad?

8. A little child helped his/her mother set the table with plates, forks, and cups. His/her mother got mad and spanked him/her. Was helping his/her mother set the table good or bad?

9. A little child climbed on a chair and got into the candy dish. He/she ate all the candy in the dish. His/her mother got mad and spanked him/her. Was getting into the candy dish and eating all of the candy good or bad?

10. A little child got up in the morning and made his/her bed all by himself/herself. His/her mother got mad and spanked him/her. Was making his/her bed all by himself/herself good or bad?

APPENDIX E

Materials and Supplimentary materials used in Experiments

Investigating:

Changing Children's Belief in Immanent Justice

STORIES USED IN THE PRE AND POST TESTS

Story One

There was once a little girl who didn't mind her mother. She took the scissors one day when she had been told not to use the scissors. No one ever found out that she had taken the scissors. What do you think happened to the little girl then?

Actually what happened was this. While the little girl was trying to cut some paper, she cut her finger. Can you tell me the reason the little girl cut her finger?

If the little girl's mother had said it was all right to use the scissors, would the little girl have cut her finger?

Story Two

A little boy knew that he was never to watch cartoons in the mornings until he had all his work finished. But one morning the little boy's mother went away and a baby sitter came. The little boy sat and watched television all morning without doing any work. But no one ever found out that he had watched television and not done his work. What do you think happened to the little boy then?

Actually what happened was this. After the little boy watched television he went outside and played on his swings. While he was swinging the swing broke and he fell and bumped his head. Can you tell me the reason the swing broke and he fell and bumped his head?

If the little boy had not watched television and done his work, would he have fallen and bumped his head?

Story Three

There was a little girl who moved to a new house. The neighbors had a big dog. The little girl's mother told her not to bother the dog because he didn't know her and might get mad and bite her. The little girl didn't mind her mother. She went over and tried to play with the dog. No one ever found out that she didn't do what her mother told her to do. What do you think happened to the little girl then?

Actually what happened was this. The little girl went over and tried to play with the dog, and the dog didn't recognize her and tried to bite her. Can you tell me the reason the dog bit the little girl?

If the little girl's mother had said it was all right to play with the dog, would the dog have bitten the little girl?

Story Four

A little girl saw that one of her friends had a new toy. The little girl liked the toy so much she decided to take the toy when her friend wasn't looking. No one ever found out that she had taken the toy. What do you think happened to the little girl then?

Actually what happened was this. The little girl took the toy home. Later that afternoon she became sick to her stomach. Can you tell me the reason the little girl became sick to her stomach?

If the little girl had not taken the toy, would she have become sick to her stomach?

Story Five

A little boy's mother told him never to play in the street. One day the little boy and his friend played ball in the street. No one ever found out that the little boy had played in the street and he had not done what his mother wanted. What do you think happened to the little boy then?

Actually what happened was this. The little boy played in the street, and when he was playing, he was hit by a car and was badly hurt. Can you tell me the reason the little boy was hit by the car?

If the little boy's mother had said it was all right to play in the street, would he have been hit by the car?

Story Six

A big boy got mad at his little brother and beat him up when mother wasn't home. No one ever found out that the big boy had been mean to his little brother. What do you think happened to the big boy then?

Actually, what happened was this. Later the big boy was riding his bicycle and it tipped over and he fell off and hurt himself. Can you tell me the reason the big boy fell off his bicycle and hurt himself?

If the big boy had not been mean to his little brother, would he have fallen off his bicycle and hurt himself?

Story Seven

A little boy's father told him not to jump on his bed. One day when the father wasn't home, the little boy jumped on the bed for a long time. No one ever found our that the little boy jumped on the bed. What do you think happened to the little boy?

Actually what happened was this. When the little boy was jumping on the bed he bumped his head. Can you tell me the reason the little boy bumped his head?

If the little boy's father had said it was all right to jump on the bed, would he have bumped his head?

Story Eight

There was a little boy who was naughty. He was playing with his daddy's camera when no one else was home and he broke it. He put it away when daddy hot home and found out that the camera was broken he asked the little boy if he had been playing with it. The little boy lied and said, "no." No one ever found out that he lied or broke the camera. What do you think happened to the little boy then?

Actually what happened was this. The next day, the boy was climbing a tree. He grabbed on to a branch and it broke and he fell and was hurt. Can you tell me the reason the little boy fell and was hurt?

If the little boy had not lied and broken the camera, would he have fallen from the tree and been hurt?

STORIES USED IN TRAINING

Related Stories

1. A mother told her little girl not to play with the neighbor's big dog. The little girl did not mind her mother. She went over and teased the dog. Her mother never found out that the little girl had played with the dog. What happened to the little girl? What really happened was that the dog bit the little girl's hand. Why did the dog bite the little girl's hand? If the little girl's mother had said it was all right to play with the dog, would she have been bitten anyway? Why are children bitten by dogs? Did the dog know the little girl had disobeyed her mother? Why did the dog bite the little girl?

2. There was once a little girl who didn't mind her mother. The little girl's mother told her never to play with the iron. One day the little girl was all alone in the house and she got out her mother's iron and began to play with it. No one ever found out that the little girl played with the iron. What happened to the little girl? What really happened to the little girl, was that while she was playing with the iron, she burned her finger and it hurt a lot. Why did the little girl burn her finger? Would she have burned her finger if hermother had said it was all right to play with the iron? Why do little children burn themselves when they play with irons? Why did the little girl burn her finger?

3. One day in nursery school when the children were using the paints, the teacher told them to be very careful not to spill any. One little girl did not mind the teacher and started to splash her paints. No one ever found out that the little girl was splashing paints. What happened to the little girl? What really happened to the little girl was that she splashed paint on one of her prettiest dresses. Then the little girl was very sad because she had ruined her pretty dress. Why did the little girl ruin her dress? Would she have ruined her dress if

the teacher had said it was all right to splash the paints? Why is it wrong for children to splash paints? Why did the little girl ruin her dress?

4. There was once a little boy who was very naughty. The little boy's mother told him never to eat his snacks in the living room where the television was. One day the little boy's mother had gone to the store and the little boy took his milk and cookies into the livingroom to eat while he watched TV. No one ever found out that the little boy had taken the cookies and milk into the livingroom. What happened to the little boy? What really happened was that while the little boy was eating his snack he spilled it all over the floor. The livingroom rug was ruined and the boy felt very sad. Why was the rug ruined? If the little boy's mother had said it was all right to take the snack into the livingroom would he still have spilled his snack and ruined the rug? Why should little children not eat snacks in the livingroom? Why was the rug ruined and the little boy so sad?

5. There was once a little girl who was very naughty. Her mother told her never to play with the doors on the kitchen cabinets. But one day when the little girl was all alone in the kitchen she decided to play with the cabinet doors. No one ever found out that the little girl had played with the doors. What happened to the little girl? What really happened to the little girl was that while she was playing with the doors she smashed her finger in the door. It hurt a lot. Why did the little girl smash her finger? If her mother had said it was all right to play with the cabinet doors would she still have smashed her finger? Why do little children get their fingers smashed? Why did the little girl get her finger smashed?

6. There was once a little girl who was very naughty. The little girl's daddy told her to brush her teeth after every meal and every snack. The little girl did not mind her daddy. She never brushed her teeth. No one ever found out that the little girl did not brush her teeth. What happened to the little girl? What really happened to the little girl was that she got a bad toothache. Because the little girl had a toothache she had to go to the dentist and get a filling because

she had a cavity. Why did the little girl get a toothache? If her daddy had said she did not have to brush her teeth would she still have gotten a toothache? Why do children get toothaches? Why did the little girl get a toothache?

7. There was once a little girl who was very naughty. Her mother told her never to play with the burners on the kitchen stove. One day when the little girl was home alone, she went into the kitchen and began to play with the burners on the stove. What happened to the little girl? What really happened to the little girl was that while she was playing with the stove, she burned her hand. It hurt a lot. Why did the little girl burn her hand? Would she have burned her hand if her mother had said it was all right to play with the stove? Why should little children not play with stoves? Why did the little girl burn her hand?

8. Once there was a little boy who was naughty. The little boy's mother told him never to play outside in the rain and cold without his coat on. One day when the little boy's mother was inside the house sewing, the little boy ran outside in the rain to play. It was a very cold and rainy day. The little boy did not wear his coat. No one ever found out that the little boy played outside in the cold and rain without his coat. What happened to the little boy? What really happened to the little boy was that he caught a bad cold and had to stay in bed for two days. He felt very sick. Why did the little boy catch a cold and have to stay in bed? If his mother had said it was all right to play in the cold and rain without his coat would he still have caught a cold? Why do children catch colds? Why did the little boy catch a cold?

9. There was once a very naughty little girl. The little girl's daddy told her never to eat the berries that she found on the bushes outside their house and outside her nursery school. But one day when the little girl was outside playing, she thought it would be fun to eat some of the berries. She picked a handful of the little orange berries and popped them in her mouth. No one saw the little girl eat the berries. What happened to the little girl? What really happened to the

little girl was that she got a bad stomach ache and felt very sick. Why did the little girl get sick to her stomach? If her daddy had said it was all right to eat the berries would she still have gotten a stomach-ache? Why should little children not eat the berries they find on bushes? Why did the little girl get sick to her stomach?

10. One day at nursery school when the children were outside, the teacher called them together and told them to be very careful when they were playing on the slide and to never push. But several children did not listen to the teacher and went over to the slide, forgetting what the teacher had told them. They began pushing and shoving. No one saw that the children were pushing. What do you think happened? What really happened to the children was that while they were pushing, one little boy fell off and hurt his leg. Then all of the children felt very sad. Why did the little boy fall off the slide? If the teacher had said it was all right to push on the slide would the little boy still have fallen off? Why should children not push on slides? Why did the little boy fall off and hurt his leg?

11. There was once a little girl who was very naughty. Her mother told her never to play in the kitchen cupboards. But one day when the little girl's mother was gone the little girl thought it would be fun to play with some of the glasses in the cupboard. No one saw the little girl playing in the cupboard. What happened to the little girl? What really happened to the little girl was that while she was playing in the cupboard she knocked to the floor one of her mother's best glasses. The little girl felt sad because the glass broke into a thousand pieces. Why did the little girl break the glass? If her mother had said it was all right to play in the cupboard would she still have broken the glass? Why should little children not play in cupboards? Why did the little girl break the glass?

12. There was once a little girl who didn't mind her daddy. Her daddy told her never to play around their car. But one day when the little girl was outside playing and her daddy was in the house, the little girl thought it would be fun to climb up on the hood of the car and play around. No one saw thatthe little girl was playing on

the hood of the car. What do you think happened to the little girl? What really happened to the little girl was that while she was playing on the hood of the car she fell off and bumped her head very hard. It hurt a lot. Why did the little girl hurt her head? If her daddy had said it was all right to play on the car would she still have hurt her head? Why should children not play on cars? Why did the little girl hurt her head?

13. There was once a little boy who didn't mind his daddy. His daddy told him never to ride his big brother's bike. But one day when the little boy was outside all alone, he decided that it would be a lot of fun to ride his big brother's bike. What do you think happened to the little boy? What really happened to the little boy was that while he was riding the bike he fell off and skinned his arm and his knee. It hurt a lot. Why did the little boy skin his arm and his knee? If his daddy had said it was all right to ride his big brother's bike would he still have hurt himself? Why should children not ride their older brother's and sisters' bikes? Why did the little boy hurt himself?

14. There was once a little girl who was very naughty. Her mother told her never to go into the kitchen and eat all the cookies in the cookie jar. But one day when the little girl was all alone in the kitchen, she decided it would be a lot of fun to eat all the cookies in the jar. No one saw that the little girl was eating all the cookies. What happened to the little girl? What really happened to the little girl was that she got a bad tummy ache. Why did the little girl get a tummy ache? If her mother had said it was all right to eat all the cookies in the cookie jar would the little girl still have gotten a tummy ache? Why do children get tummy aches? Why did the little girl get a tummy ache?

15. There was once a little boy who was very naughty. His mother told him never to play with matches. One day when the little boy was home alone, he climbed up into the cabinet and got the matches. He lit several matches. What happened to the little boy? What really happened to the little boy was that while he was playing with the matches, he burned his fingers. Why did the little boy burn his fingers?

Would he have burned his fingers if his mother had said it was all right to play with the matches? Why should children not play with matches? Why did the little boy burn his fingers?

16. There was once a little boy who was very naughty. His father told him never to play with the car windows.But one day when the little boy was playing outside, he thought it would be fun to get in the car and play with the windows. He rolled them up and down as fast as he could. No one saw the little boy playing with the windows. What happened to the little boy? What really happened to the little boy was that while he was playing with the windows he smashed his finger in them. It really hurt. Why did the little boy smash his finger in the car window? If his father had said it was all right to play with the windows would he still have smashed his finger? Why should children not play with car windows? Why did the little boy smash his finger?

17. There was once a little boy who was very naughty. His father told him never to play near the fireplace, or to put things in the fire. But one day when the little boy was all alone near the fireplace he thought it would be fun to take some paper and stick it in the fire. No one saw the little boy playing near the fireplace. What happened to the little boy? What really happened to the little boy was that while he wasplaying with the fire his paper caught on fire and the little boy burned his hand. It hurt an awfully lot and he was very sad. It also scared him. Why did the little boy burn his hand? If his daddy said it was all right to play by the fireplace would he still have burned his hand? Why should children not play with fire? Why did the little boy burn his hand?

18. There was once a little boy who was very naughty. His mother told him never to climb the giant tree that grew in their backyard. But one day when the little boy's mother was busy in the house the little boy decided it would be fun to go outside and climb the tree. No one saw the little boy climbing the tree. What happened to the little boy? What really happened to the little boy was that while he was climbing the tree he slipped and fell out. He fell all the way to the ground and skinned both knees. It hurt a lot. Why did the little boy fall

from the tree? If his mother had said it was all right to climb the tree would he still have fallen? Why do children fall when they climb trees? Why did the little boy fall from the tree?

19. There was once a little boy who didn't mind his mother. His mother told him never to play with her sharp kitchen knives. But one day when his mother had gone to the store the little boy thought it would be a lot of fun to be a pirate and play with the sharp knives. No one saw that he was playing with the knives. What happened to the little boy? What really happened to the little boy was that while he was playing with the sharp knives he cut his finger very badly. It bled a lot and really hurt. Why did the little boy cut his finger? If his mother had said it was all right to play with sharp knives would he still have cut his finger? Why should children not play with sharp knives? Why did the little boy cut his finger?

20. There was once a little boy who was very naughty. His father told him never to play with his razor. But one day the little boy was all alone in the bathroom and thought it would be a lot of fun to play with his daddy's razor. So the little boy began to play that he was a big man shaving his beard. No one saw the little boy playing with the razor. What happened to the little boy? What really happened to the little boy was that while he was playing with the razor he cut his cheek. It bled and bled. Why did the little boy cut his cheek? If his daddy had said it was all right for the little boy to play with his razor would he still have cut his cheek? Why should children not play with razors? Why did the little boy cut himself?

21. There was once a little boy who was very naughty. His mother told him never to eat the pills he found in the medicine cabinet. She said that he should stay out of the medicine cabinet. But one day when the little boy was all alone in the bathroom he climbed up to the cabinet and got some pills and began to eat them. No one saw the little boy eating the pills. What happened to the little boy? What really happened to the little boy was that after he ate the pills he got a bad headache and stomachache. He felt very sick. Why did the little boy get sick? If his mother had said it was all right to eat the pills

would he still have gotten sick? Why should little children leave the pills alone that they find in the medicine cabinet? Why did the little boy get sick?

22. There was once a little boy who was very naughty. His mother told him always to be kind to their cat and never tease it. But one day when the little boy was playing with the cat he forgot to obey his mother and began to play roughly with the cat and to tease it. No one saw the little boy mistreating the cat. What happened to the little boy? What really happened to the little boy was that the cat jumped up and scratched the little boy's hand. It made a deep scratch that hurt a lot. Why did the cat scratch the little boy's hand? If his mother had said it was all right to tease the cat would it still have scratched the little boy? Why should children be kind to their pets? Why did the cat scratch the little boy?

23. There was once a little boy who was very naughty. His mother told him never to jump on the couch in the livingroom. But one day when his mother was at the store the little boy thought it would be a lot of fun to jump on the couch. The little boy jumped up and down as hard as he could on the couch. No one saw the little boy on the couch. What do you think happened to the little boy? What really happened to the little boy was that when he was jumping he fell off the couch. He bumped his head very hard and it hurt a lot. Why did the little boy bump his head? If his mother had said it was all right to jump on the couch would he still have bumped his head? Why should children not jump on the furniture? Why did the little boy hurt his head?

24. There were two children who were very naughty. They were brother and sister. Their mother told them never to play with their ball in the house. But one day when their mother was busy in another room, the children decided it would be a lot of fun to throw the ball around inside the house and play catch. No one saw that the children were playing ball inside the house. What happened to the children? What really happened to the children was that while they were playing with the ball they knocked over a very pretty lamp and broke it. The

children felt very sad. Why were the children sad? If their mother had said it was all right to play ball in the house would they still have knocked over the lamp? Why should children play ball outside? Why were the children sad?

Unrelated Stories

1. There was once a little girl who was very naughty. Her mother told her never to play with the mother's make-up. But one day when the mother left the house, the little girl played with her mother's make-up. What happened to the little girl? What really happened to the little girl was that night she got a bad tummyache. Can you tell me why the little girl got a tummy ache? Would she have gotten a tummy ache if her mother had said it was all right to play with the make-up? Why do children get tummy aches? Why did the little girl get sick to her tummy?

2. Once there was a little girl who didn't mind her mother. Her mother told the little girl never toplay in the pan drawer. One day when the little girl's mother was not home the little girl played with all the pans in the pan drawer. No one ever found out that the little girl was playing in the pan drawer. What happened to the little girl? What really happened to the little girl was that later that afternoon when she was playing outside she fell down and skinned her knee. Why did the little girl fall down and skin her knee? If her mother had said it was all right to play in the pan drawer would she still have skinned her knee? Why do children skin their knees? Why did the little girl skin her knee?

3. There was once a little boy who didn't mind his daddy. The little boy's daddy told him never to play outside in the rain with his toys. One day when the little boy's father was at work the little boy took his toys outside in the rain to play. No one ever found out that the little boy had played with his toys outside in the rain. What happened to the little boy? What really happened to the little boy was that later that day he tripped over a chair and hurt his arm. Why did the little boy fall and hurt his arm? If the little boy's daddy had said it was all right to play outside in the rain with his toys would

the little boy still have hurt his arm? Why do children fall and hurt their arms? Why did the little boy fall and hurt his arm?

4. There was once a little boy who was naughty. The little boy's daddy told the little boy never to play on his big ladder. One day when the little boy's daddy was not home the little boy went outside and climbed on the ladder while it was leaning against the house. No one saw the little boy climbing the ladder. What happened to the little boy? What really happened to the little boy was that later that afternoon while he was playing with his favorite toys they were broken. Why were the little boy's toys broken? If the little boy's father had said it was all right to climb on the ladder would his toys still have been broken? Why do toys break? Why were the little boy's toys broken?

5. There was once a little girl who was very naughty. Her mother told her never to hit her little brother. But one day when her mother was gone the little girl got very mad at her little brother and hit him as hard as she could. No one saw the little girl hit her brother. What happened to the little girl? What really happened to the little girl was that later that afternoon while she was playing with her best doll, the doll's leg fell off. The little girl felt very badly. Why did the little girl's doll break? If she had been kind to her little brother would her doll still have been broken? Why should children be kind to their brothers and sisters? Why did the little girl's doll break?

6. There was once a little boy who didn't mind his daddy. The little boy's daddy told him never to tease their dog. But one day when the little boy was all alone outside with the dog, he had a big bone and teased the dog with it. No one saw that the little boy was teasing the dog. What do you think happened to the little boy? What really happened to the little boy was that later that afternoon when he was outside playing he fell down and skinned his knee. Why did the little boy skin his knee? If the little boy had not teased the dog would he still have skinned his knee? Why do children skin their knees? Why did the little boy skin his knee?

7. Once there was a little boy who didn't mind his mother. His mother told him never to play with her sharp kitchen knives. But one day when his mother was in the bedroom the little boy thought it would be fun to play with the sharp knives. No one saw that the little boy was playing with the knives. What happened to the little boy? What really happened to the little boy was that later that day he got a bad headache. It hurt a lot. Why did the little boy get a headache? If the little boy had not played with the knife would he still have gotten a headache? Why do children get headaches? Why did the little boy get a headache?

8. There was once a little girl who was very naughty. Her mother told her never to eat all the cookies in the cookie jar. But one day when the little girl was home all alone she decided it would be a lot of fun to eat all the cookies. She ran into the kitchen and began gobbling them down. No one saw the little girl eating the cookies. What happened to the little girl? What really happened to the little girl was that later that afternoon when she was helping her mother with the ironing she burned her finger. Why did the little girl burn her finger? If she had not eaten the cookies would she still have burned her finger? Why do children burn themselves on irons? Why did the little girl burn her finger?

9. There was once a little girl who was very naughty. Her daddy told her never to play on the hood of the car. But one day when her daddy was gone she thought it would be fun to go outside and play around on the hood of the car. She jumped up and down on the car and had a lot of fun. No one saw the little girl pliying on the hood of the car. What happened to the little girl? What really happened to the little girl was that night she got the measles. She felt very sick and had to stay in bed for a week. Why did the little girl get the measles? If she hadn't played on the car would she still have gotten the measles? Why do little children get the measles? Why did the little girl get the measles?

10. There was once a little girl who was very naughty. Her mother told her never to climb in the big tree that grew behind their

house. But one day when the little girl was playing outside, she decided it would be a lot of fun to climb in the big tree, and so that is what she did. No one saw her climbing in the tree. What do you think happened to the little girl? What really happened to the little girl was that that night she got a bad tummy ache. She felt very sick. Why did the little girl get a tummy ache? If she had not climbed the tree would she still have gotten a tummy ache? Why do children get tummy aches? Why did the little girl get a tummy ache?

11. One day at nursery school the teacher told the children not to splash in the paints. She told them to be very careful. But one day the little girl thought it would be a lot of fun to splash in the paints. No one saw the little girl splashing in the paints. What happened to the little girl? What really happened to the little girl was that later that afternoon while the little girl was playing outside with the other children, someone kicked a ball and it hit her right in the stomach. It really hurt. Why did the little girl get hit in the stomach with the ball? If she had not splashed paints would she still have been hit with the ball? Why do little children get hit with balls? Why did the little girl get hit with the ball?

12. Once there was a little boy who was very naughty. He never obeyed his mommy. One day his mother told him never to eat his snacks in the livingroom. But when the little boy's mother went to the store and the little boy was home all alone he decided to take his snack of cookies and milk into the livingroom and to eat in front of the TV. No one saw the little boy eating his snack in the livingroom. What happened to the little boy? What really happened to the little boy was that later that afternoon while he was outside riding his bike he fell off and skinned his knee. It hurt a lot. Why did the little boy fall and skin his knee? If his mother had said it was all right to eat in the livingroom would he still have fallen? Why do little children fall and skin their knees? Why did the little boy fall?

APPENDIX F

Materials and Supplimentary Information used in Experiment:

Changing Children's Beliefs About Punishment

Posttest Stories

1. Linda got mad at her brother when they were getting ready to eat lunch, so she poured salt into his soup. What would be a fair punishment for Linda?
   A. Make her give her soup to her brother.
   B. Send her to her room for three hours.

2. Johnny wanted to tease his little brother so he hid his ball. He then went out to play with his friends. What would be a fair punishment for Johnny?
   A. Make him come home from playing to find his brother's ball.
   B. Spank him in front of all of his friends.

3. Sally wants to go to the show with her friends and Mommy says she can go if she cleans her room first. She plays with her dolls instead of cleaning her room. What would be a fair punishment for Sally?
   A. Make her stay home from the show while she cleans her room.
   B. Not let her have any ice cream for a whole week.

4. Annie built a house for her dolly out of blocks. Billy came along and said it was dumb and knocked it over. What would be a fair punishment for Billy?
   A. Not let him play with his friends all day.
   B. Make him rebuild the house for Annie.

5. Norma's mother is making her a new dress for a special party. Norma tries to play with the sewing machine and she breaks it. What would be a fair punishment for Norma?
   A. Spank her.
   B. Make her go to the party in an old dress.

6. Daddy told Fred not to throw the ball in the house. He did it anyway and broke a window. What would be a fair punishment for Fred?
   A. Make him pay for the window out of his allowance.
   B. Not let him watch T.V. for a week.

7. Suzy and Jane were taking a bath. They started to fight by splashing water on each other. Soon they had water all over the bathroom. What would be a fair punishment for Suzy and Jane?

A. Send them to bed without supper.
B. Make them clean up the bathroom.

8. Daddy had just planted some flowers. Jimmy stepped on the flowers and killed them. What would be a fair punishment for Jimmy?
A. Make him plant new flowers.
B. Not let him play with his friends for a week.

9. Judy didn't do any of her chores during the week. What would be a fair punishment for Judy?
A. Spank her.
B. Not give her any allowance that week.

10. Dick is supposed to mow the lawn every week. One week he doesn't do it because he wants to play. The next week the grass is so long that it is very hard to mow. What would be a fair punishment for Dick?
A. Not let him watch his favorite T.V. program.
B. Make him mow the lawn anyway, even if it takes four hours.

11. Greg got mad at Terry so he took Terry's baseball and threw it in the water and ruined it. What would be a fair punishment for Greg?
A. Make him give Terry his own baseball.
B. Not let him go to the baseball game on Saturday.

12. Kathy wanted to make mud pies. She used Mommy's good mixing bowls to mix the mud in and got them all dirty. What would be a fair punishment for Kathy?
A. Not let her have any desert.
B. Make her wash the bowls.

Delayed Posttest Stories

1. Karen was playing with her baby sister. When her mother wasn't looking, Karen took her baby sister's doll and ran into the other room. What would be a fair punishment for Karen?
   A. Make her give the doll back.
   B. Don't give her any lunch.

2. Jimmy got mad at his father because he wouldn't let him help paint the fence. So Jimmy kicked over the bucket of paint. What would be a fair punishment for Jimmy?
   A. Don't let him play with his friends all afternoon.
   B. Make him clean up the paint.

3. Sandy didn't want to help her mother with the dishes so she dropped one on the floor and broke it. What would be a fair punishment for Sandy?
   A. Have her save her money and buy a new one.
   B. Spank her.

4. Tod's mother told him to take out the trash before he went to play baseball with his friends. Tod didn't do what his mother said but just went to play ball. What would be a fair punishment for Tod?
   A. Don't give him any desert.
   B. Make him come home and take out the trash.

5. Annie was playing with her big sister's records when she wasn't suppose to and she broke one. What would be a fair punishment for Annie?
   A. Make her give her sister one of her own records.
   B. Don't let her watch T.V. for a week.

6. Henry didn't like his soup so he dumped it on the floor. What would be a fair punishment for Henry?
   A. Spank him.
   B. Make him clean up the soup and don't give him any more.

7. Jack's neighbor got a new bike and Jack was mad because he didn't have one. So he pushed it over and broke the pedal. What would be a fair punishment for Jack?
   A. Make him fix the bike.
   B. Not let him go out and play for a week.

8. Suzy drew on the wall with her crayons. What would be a fair punishment?
   A. Not let her watch T.V.
   B. Make her wash the wall.

9. Bill got a new bat and left it out in the rain and it got ruined. What would be a fair punishment?
   A. Don't buy him another bat, so he has to use the ruined one.
   B. Spank him.

10. Janice made lots of noise when her baby sister was asleep and woke her up. Fair punishment?
   A. Make her tend the baby.
   B. Yell at her.

11. Mommy told Timmy that he had to take a bath before he could go to Grandma's house. But he didn't want to so he ran and hid until it was time to go. What would be a fair punishment for him?
   A. Make him wash the dishes.
   B. Don't let him go to Grandma's.

12. Mary and John were playing a game. They started to fight over one of the rules. What would be a fair punishment for Mary and John?
   A. Take the game away.
   B. Don't give them any dinner.

TABLE 24

Means and Standard Deviations of Posttest and Delayed Posttest Experiment 1

Test	Group					
	Discussion		Reinforcement		Control	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Posttest	8.8	3.96	8.5	5.0	3.57	3.31
Delayed Posttest	9.2	4.02	8.75	4.93	7.4	3.21

TABLE 25

ANALYSIS OF MEAN POSTTEST SCORES FOR EXPERIMENT II

Measure	Group		
	Discussion	Reinforcement	Control
Posttest			
Total score	21.36	23.83	16.31
Choices only	8.22	8.50	6.87
Responses only	13.14	15.33	9.44
Unweighted responses	4.38	5.11	3.15
Delayed Posttest			
Total score	21.62	25.40	23.62
Choices only	8.54	7.50	6.87
Responses only	13.08	17.90	15.77
Unweighted responses	4.36	6.00	5.26

TABLE 26

Summary Table for Planned Comparisons of Means
Experiment 1

Measure and Response	N	df	ψ	MS_e	t
Experimental groups vs control group					
Posttest	16	13	5.08	15.66	2.54*
Delayed Posttest	14	11	1.58	16.25	.65
Discussion group vs. verbal discrimination group					
Posttest	9	7	.30	19.7	.11
Delayed Posttest	9	7	.45	19.8	.15

* $p \leq .025$

TABLE 27

Summary Table for Planned Comparisons of Means
Experiment 2

Measure and Response	N	df	ω^2	MS_e	t
Experimental Groups vs. Control group					
Posttest	42	39	6.29	124.88	1.78**
responses only	42	39	4.80	123.57	1.37*
choices only	42	39	1.46	4.46	2.18***
Delayed Posttest	36	33	.11	203.55	.02
responses only	36	33	.28	141.36	.07
choices only	36	33	.17	5.75	.20
Discussion group vs. Reinforcement group					
Posttest	26	24	2.47	136.45	.55
responses only	26	24	2.19	131.31	.49
choices only	26	24	.28	4.56	.34
Delayed Posttest	23	21	3.78	192.07	.64
responses only	23	21	4.82	127.42	1.01
choices only	23	21	1.04	4.56	1.15

* $p < .10$

** $p < .05$

*** $p < .025$

TABLE 28

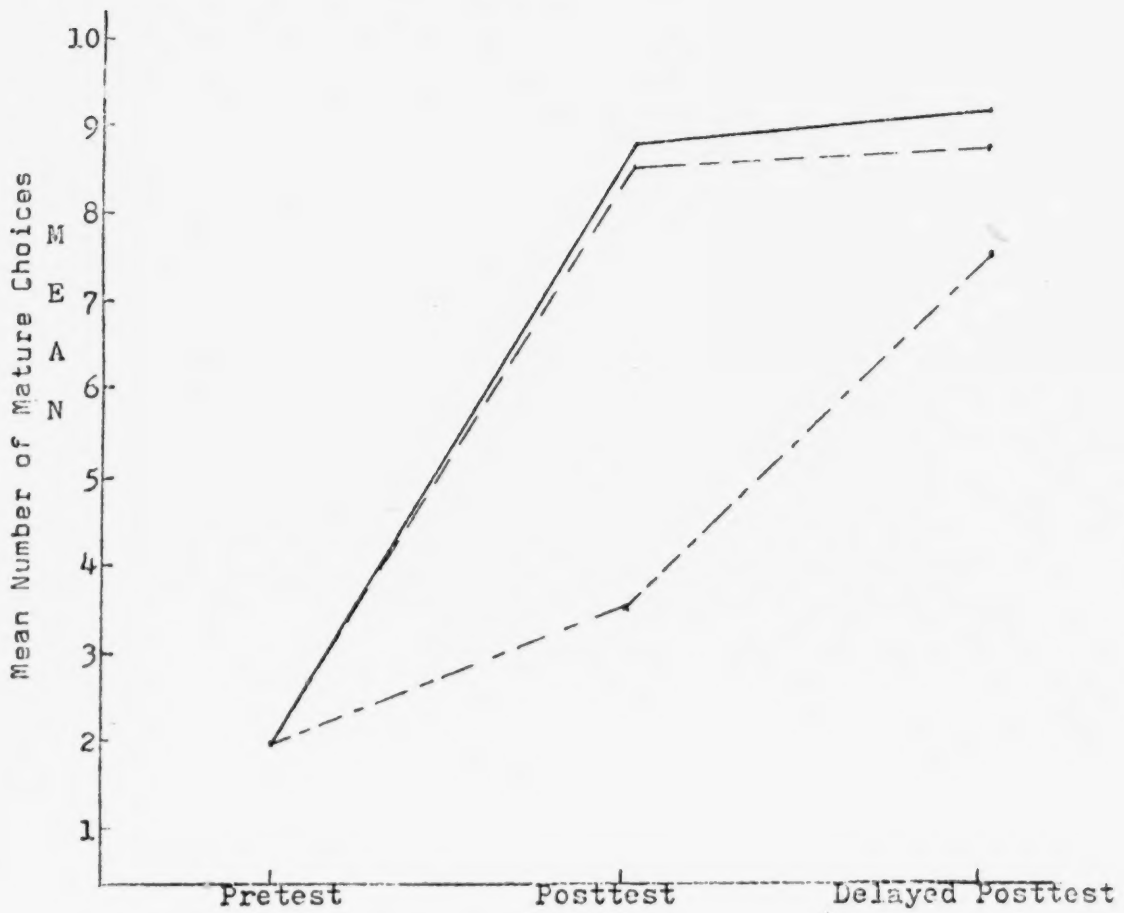
Differences of Variances for Pretest, Posttest, and Delayed Posttest
Experiment 7

Comparison	Group					
	Discussion		Reinforcement		Control	
	df	F	df	F	df	F
Pretest vs Posttest	13,13	4.78***	11,11	4.39**	15,15	3.15**
Pretest vs. Delayed Posttest	13,11	4.00**	11,10	5.74***	15,12	6.51***
Posttest vs. Delayed Posttest	13,11	1.19	11,10	1.31	15,12	2.06*

* $p<.10$

** $p<.025$

*** $p<.01$



[a] - Pretest score is a maximum

Figure 6. Comparison of Means on Pretest, Posttest and Delayed Posttest[a]

Pretest Stories

1. Suzie was playing with her older sister's doll. She wasn't very careful and spilled some punch on the doll's dress. What would be a fair punishment for Suzie. A. Make her wash the doll's dress herself. B. Make her stay in her room all afternoon while her friends go for a walk.

2. Dick is supposed to mow the lawn every week. One week he doesn't do it because he wants to play. The next week the grass is so long that it is very hard to mow. What would be a fair punishment for Dick? A. Not let him watch his favorite T.V. program. B. Make him mow the lawn anyway, even if it takes 4 hours.

3. Mary was using her mother's good dishes to play tea party. She dropped one and broke it. What would a fair punishment for Mary? A. Make her save her allowance and pay for a new dish. B. Take away her favorite doll.

4. Jimmy and his brother have twin toy airplanes. Jimmy's brother's airplane always seems to go higher. This makes Jimmy mad so he steps on his brother's plane and breaks it. What would be a fair punishment for Jimmy? A. Keep Jimmy inside after school for one day. B. Have Jimmy give his airplane to his brother.

5. Judy's mother told her to go to the store to buy some ice cream for desert. Judy was busy playing and didn't do what her mother asked. So her mother had to go to the store and get the ice cream. What would be a fair punishment for Judy? A. Don't let Judy have any ice cream. B. Don't let her go to the circus on Saturday.

6. Greg wants to go to the show with his friends and Mommy says he can go if he cleans up his room first. He plays with his trucks instead of cleaning his room. What would be a fair punishment for Greg? A. Not let him have any ice cream for a whole week. B. Make him stay home from the show while he cleans his room.

7. Sally was painting in the living room even though her mother told her not to. She knocked over the paint and made a big spot on the rug. What would be a fair

punishment for Sally? A. Have her scrub the rug until the paint comes out? B. Spank her.

8. Bobby was using his daddy's saw. He was careless and left it out when he was finished. That night it rained and the saw got all rusted. What would be a fair punishment for Bobby? A. Don't let him watch TV for a week. B. Don't let him use the saw again until he shows he will take care of it.

Training Stories

1. Sarah's teacher goes out of the room after saying, "Stay in your places." When the teacher leaves, Sarah goes to the blackboard and starts to write. While she's writing she knocks the box of chalk over and many of the pieces break. What would be a fair punishment for Sarah?
   A. Make her stand in the corner for an hour.
   B. Make her save her allowance and pay for the chalk.

2. Henry is coming home from football practice. The coach yelled at him during practice, so Henry is feeling bad. He slams the door behind him, and makes a crack in the glass. What would be a fair punishment for Henry?
   A. Don't let him drive the car for a week.
   B. Make him buy a new piece of glass and put it in the door.

3. Mary Jane asks her mother, "Can I back a cake?" Her mother says, "No, I'm using the kitchen now." Mary Jane doesn't like that, so as she leaves the kitchen, she pushes over the flour box, and some of the flour spills. What would be a good punishment for Mary Jane?
   A. Make her wipe up the floor where the flour was spilled.
   B. Take away her favorite doll.

4. While Donald's father was away, Donald thought it would be fun to play with his father's pen. First he played with it for awhile, then made a little spot on the tablecloth. What would be a fair punishment for Donald?
   A. Don't let him play with his friends for a week.
   B. Make him scrub the tablecloth until the spot comes out.

5. Elsa's mother sent her to the store to buy some ice cream for desert. "Come right back," her mother says. On the way Elsa meets a friend who says, "Come and play." So Elsa plays. While she's playing the money falls out of her pocket and gets lost. What would be a good punishment for Elsa?
   A. Make Elsa take some of her own money and go buy the ice cream.
   B. Spank her.

6. Mike has his new Sunday shoes on. "I think I'll climb a tree before my mother gets home," he says to himself. He climbs the tree and gets scratches on his new shoes. What would be a fair punishment for Mike?
A. Don't let him watch TV for three days.
B. Make him polish his new shoes to get the scratches fixed.

7. Marcia's father says. "Don't walk on the new grass." Marcia sees her friend, who calls to her, "come over and play." Marcia is in a hurry, so she walks across the new grass. What would be a good punishment for Marcia?
A. Make her take a little shovel and fix the new lawn where she stepped on it.
B. Make her stay in the house all afternoon.

8. Andrew is supposed to go to bed at eight o'clock. His parents aren't home and he's reading a good comic book, so he stays up until nine o'clock. What would be a fair punishment for Andrew?
A. Don't let him go to the park with his friends next Saturday.
B. Have him take a nap the next afternoon.

9. Dean says, "I wonder if nails make a tire flat." He wants to find out, so he throws some nails in the driveway. "Now I'll see," says Dean. When his father drives in that evening he gets a flat tire. What would be a good punishment for Dean?
A. Don't buy him any toys until the tire is paid for.
B. Don't take him to the circus next week?

10. One day when Carol's mother was out, Carol tried to get some cookies from the cookie jar. She climbed up on a chair and while she was getting the cookies, she knocked over some glasses and they broke. What would be a fair punishment for Carol?
A. Don't let her play with her friends for a week.
B. Have her do chores to earn enough money to pay for the glasses.

11. Louie is playing "Tarzan" in the front room. He climbs up on the drapes and the drapes get all wrinkled. What would be a fair punishment for Louie?
A. Have him stay inside and help his mother with the work so she will have time to iron the drapes.
B. Spank him.

12 When the teacher is out of the room, Suzanne runs into the corner of the room to hide behind the paint easles. As she does, she knocks over the paint and

it spills all over the floor. What would be a fair punishment for Suzanne?
A. Make her sit in the corner while the rest of the class plays a game.
B. Make Suzanne take a sponge and wipe up all the paint.

13. Fred is picking apples, and he is tired of it. So sometimes he throws the apples down so hard that they get bruised. What would be a good punishment for Fred?
A. Have Fred go through all the apples and pick out the bad ones even though he won't have any time to play.
B. Make him sit in his room all afternoon.

14. Rachael's class is doing spelling. Rachael is tired of spelling, so she just plays with the pencil sharpener. When she does some of the scraps fall on the floor. What would be a fair punishment?
A. Make her stand in the hall for an hour.
B. Make her get a broom and clean up the scraps.

15. It's wintertime and Gary is throwing snowballs. He thinks it's fun to throw snowballs at his father's car. Pretty soon the windshield is so covered with snow that his father can't see out of it to drive to the store. What would be a good punishment for Gary?
A. Have Gary clean the snow off the car.
B. Don't let Gary have any of the candy his father bought at the store.

16. Katie is getting tired of sitting and waiting while her mother is shopping. So Katie runs up and down the aisles in the grocery store. The clerk tells her to slow down and be more careful. But Katie doesn't pay any attention. She starts to run again when he isn't looking. As she turns the corner her hand hits a bottle of ketchup and it falls to the floor and breaks. What would be a fair punishment for Katie?
A. Don't let her go to the park on Saturday.
B. Have her tell the clerk she's sorry and will clean up the mess.

17. Floyd's father is painting the fence. Floyd gets mad because his father won't let him help and so he kicks the can and makes the paint spill on the groun.
A. Send him to his room for the afternoon.
B. Make Floyd get a rag and wipe all the paint up.

18. Judy didn't want to help the teacher clean up the paints. So she was extra careless and spilled some

paint on the floor.
A. Make her clean up the paint with a sponge.
B. Yell at her.

19. Harvey and his class are playing kickball. All of a sudden, the bell rings. "Recess is over, everybody back to the classroom," says the teacher. Harvey didn't have a chance yet at kicking the ball, so when the teacher is lining the children up, Harvey takes the ball and kicks it to the far corner of the playground.
A. Have Harvey stay in his seat during the special movie time and don't let him see the movie.
B. Make Harvey go and get the ball.

20. Ann doesn't like to fingerpaint. When the class was finger painting one afternoon, Ann didn't do much finger painting. She just played with the paint, and some spilled on her desk.
A. Make her clean up the desk.
B. Make her stay inside during the play time.

21. Rose's older sister plays the record player a lot. One day Rose's sister has played the same record over and over again, and Rose is tired of it. Rose takes the record and hides it so her sister can't play it anymore.
A. Have her give the record back to her sister and say she's sorry.
B. Spank her.

22. Some boys are building a plane. They go inside for a while. Oscar comes by and sees the plane. Nobody is looking so Oscar flies the plane. When it lands, a piece of the wing breaks off.
A. Don't let Oscar have any desert after dinner for a week.
B. Have Oscar build the boys a new plane.

23. Hank is getting the newspaper so his father can read it. He hides the newspaper for fun--behind the steps where nobody can reach it. So his father has no newspaper to read.
A. Don't let him watch his favorite T.V. show that night.
B. Send him to the store to buy his father another newspaper.

24. Sharon was playing with her little sister. Her little sister had a doll she wanted so she grabbed it away and made her little sister cry.
A. Make her give the doll back to her little sister

and say she's sorry.
B. Spank her and send her to her room.

25. Steve is riding his bike very fast in the driveway. He wanted to see how close he could come to his father's car. He came very close and his handlebar hit the fender and made a scratch.
A. Have him put his bike in the garage and not ride it for a week.
B. Have him get the car polish and fix the scratch.

26. Diane's mother says "put the eggs in the refrigerator." While she is putting the eggs away, Diane starts to play with them. She rolls them around the table. Four eggs fall off the table and break.
A. Tell Diane to go to her room.
B. Have Diane clean up the eggs, then go to the store and buy some more.

27. John is in his room. John's mother says, "come to dinner." John is playing and doesn't want to. So when he comes into the kitchen he kickes the table and knocks over the jam and it spills all over the floor.
A. Send him back to his room with no supper.
B. Make him clean up all the sticky jam from the floor.

28. Janie has a little rabbit. She always forgets to feed it. The little rabbit is getting sick because it's so hungry.
A. Make her give her pet to her brother, who will take care of it.
B. Don't read her any bedtime stories for a week.

29 Jeff is mowing the lawn. He doesn't feel like doing it, so he does a bad job and leaves patches of grass unmowed.
A. Make him mow the lawn over again.
B. Don't let him go camping with the cubscouts.

30. Linda was playing in the kitchen while her mother was fixing dinner. She was trying to reach the jello glasses that her mother told her not to touch and she spilled one of the jellos. Now there aren't enough for dinner.
A. Don't let her have any jello, since she spilled it.
B. Make her stay in her room after school tomorrow.

31. Ed is helping his father clean the garage. His father tells him to work harder. Ed doesn't like that so he kicks the wall and a can of oil falls off the shelf

and spills.
A. Have Ed clean up all the oil with a rag.
B. Don't let him go to the movies with his friends.

32. Jenny was tickling the girl in front of her while the teacher wasn't looking. The girl turned around to see who was tickling her. Jenny jerked her hand back so the girl wouldn't see and when she did she knocked over the jar of water and spilled it on her desk.
A. Have her clean it up.
B. Have her stay in during recess.

33. Jackie was supposed to be doing the dusting for her mother. She didn't like to, so she just swished the rag around and didn't do a good job.
A. Make her do the dusting over.
B. Don't give her any desert.

34. Karen's mother asked her to go next door and take in the paper since the neighbor was on vacation. Karen was busy playing and didn't do it.
A. Send her over to get the paper even though her favorite TV program's on.

35. Patty was hungry. Since her mother wasn't home she ate a piece of pie her mom had made for dinner.
A. Don't give her any at dinner time.
B. Spank her.

36. Sherry is looking at a picture book belonging to her mother. Instead of being careful, she makes spots on the pages.
A. Not let Sherry look at the book any more.
B. Not let her watch TV for a week.

37 David was playing in the family room with his little brother. David didn't want his brother playing there so he took away his toys, and his little brother started to cry.
A. Send him to his room.
B. Make him say he's sorry and share his torys with his brother.

38. Timmy doesn't like his soup that he's having for lunch so he dumps it on the floor.
A. Send him to his room.
B. Have him clean it up and don't give him any more.

39. Jerry was playing ball in the hallway where he wasn't supposed to. He knocked over a pot of flowers and broke it.

A. Spank him.
B. Go get a new plant and plant it himself.

40. Billy got mad at his little brother, Johnny, and went in the broke Johnny's truck.
A. Make Billy give Johnny one of his toys.
B. Break a bunch of Billy's toys on purpose.

Discussion Group
Questions

1. Read Sarah story. Q 1: Which punishment would get some new chalk for the class? Q 2: Which punishment would help Sarah replace the chalk that she broke? Ask two of the children which punishment they think is best.

2. Read Mary Jane story. Q 1: Which punishment would get the floor clean? Q 2: Which punishment would allow Mary Jane to clean up the mess that she'd made? Ask two of the children which punishment they think is best.

3. Read Donald story.. Q 1: Which punishment would get the spot out of the tablecloth? Q 2: Which punishment would help Donald fix what he did that was wrong? Ask two of the children which punishment they think is best.

4. Read Elsa story. Q 1: Which punishment would let them have ice cream for desert? Q 2: Which punishment would let Elsa make up for what she did that was naughty? Ask two of the children which punishment they think is best.

5. Read Mike story. Q 1: Which punishment would get Mike's shoes fixed? Q 2: Which punishment would help Mike fix what he did that was wrong? Ask two of the children which punishment they think is best.

6. Ask Marcia story. Q 1: Which punishment would help fix the lawn? Q 2: Which punishment would help Marcia fix what she had done by being naughty? Ask two of the children which punishment they think is best.

7. Read Carol story. Q 1: Which punishment would help get Carol's mother some new glasses? Q 2: Which punishment would help Carol make up for breaking the glasses? Ask two of the children which punishment they think is best.

8. Read the Louie story. Q 1: Which punishment would help Louie's mother so she will have time to iron the drapes? Q 2: Which punishment would let Louie help his mother fix what was wrong? Ask two of the children which punishment they think is best.

9. Read Suzanne story. Q 1: Which punishment would get the paint cleaned up? Q 2: Which punishment would let Suzanne fix what she did that was wrong? Ask two of the children which punishment they think is best.

10. Read Fred story. Q 1: Which punishment will get rid of the apples that Fred bruised? Q 2: Which punishment will allow Fred to make up for what he did that was wrong? Ask two of the children which punishment they think is best.

11. Read Rachael story. Q 1: Which punishment will get the floor cleaned up? Q 2: What did Rachael do that was wrong? Ask the children which punishment they think is best.

12. Read Gary story. Q 1: What did Gary do that was wrong? Q 2: Which punishment will get the snow cleaned off the car? Q 3: Which punishment will let Gary make up for what he did that was wrong? Ask two of the children which punishment they think is best.

13. Tell Harvey story. Q 1: Which punishment would get the ball back? Q 2: Which punishment would help Harvey make up for what he did wrong? Ask two of the children which punishment they think is best.

14. Tell Ann story. Q 1: Which punishment would get the desk clean? Q 2: Which punishment would let Ann make up for what she did wrong? Ask two of the children which punishment they think is best.

15. Tell Rose story. Q 1: Which punishment would get her sister's record back? Q 2: Which punishment would let Rose make up for taking the record? Ask two of the children which punishment they think is best.

16. Tell Oscar story. Q 1: Which punishment would give the boys a plane? Q 2: Which punishment would help Oscar make up for what he had done wrong? Ask two of the children which punishment they think is best.

17. Tell Hank story. Q 1: Which punishment would get a paper for Hank's father? Q 2: Which punishment would help Hank make up for being naughty? Ask two of the children which punishment they think is best.

18. Tell Sharon story. Q 1: Which punishment would make the little sister stop crying? Q 2: Which punishment would help Sharon make up for taking the doll? Ask two of the children which punishment they think is best.

19. Read Steve story. Q 1: Which punishment would help get the scratches on the car fixed? Q 2: Which one will help Steve make up for what he did wrong? Ask two of the children which punishment they think is best.

20. Read Diane story. Q 1: What did Diane do that was wrong? Q 2: Which punishment will fix what she did wrong? Ask two of the children which punishment they think is best.

21. Read John Story. Q 1: What did John do that was wrong? Q 2: Which punishment will help him fix what he did that was wrong? Ask two of the children which punishment they think is best.

22. Read Janie story. Q 1: Which punishment would help the little rabbit get fed? Ask two of the children which punishment they think is best.

23. Read Jeff story. Q 1: What did Jeff do that was wrong? Q 2: Which punishment will help get the lawn mowed, fix what he did wrong? Ask two of the children which punishment they think is best.

24. Linda's story. Q 1: What did Linda do that was naughty? Q 2: Is there enough Jello left for everybody, now? Q 3: Who should have to go without jello? Ask two of the children which punishment they think is best.

25. Read Jackie story. Q 1: What did Jackie do that was wrong? Q 2: Which punishment will help get the dusting done right? Ask two of the children which punishment they think is best.

26. Read Karen story. Q 1: Which punishment would get the neighbor's paper picked up? Q 2: Which one would fix what was wrong? Ask two of the children which punishment they think is best.

27. Sherry story. Q 1: What did Sherry do that was wrong? Q 2: Which punishment will teach her that she must take care of her mother's things? Ask two of the children which punishment they think is best.

28. Read David story. Q 1: What did David do that was wrong? Q 2: Which punishment will make his little brother happy again? Ask two of the children which punishment they think is best.

29. Read Jerry story. Q 1: What did Jerry do that was wrong? Q 2: Which punishment will get a new plant for his mother? Q 3: Which will let Jerry fix what

is wrong? Ask two of the children which punishment they think is best.

30. Read Billy story. Q 1: What did Billy do that was wrong? Q 2: Which punishment will get Johnny a new toy? Ask two of the children which punishment they think is best.

Control Group
Questions

Gertie the Duck

1. Gertie the Duck wanted to find a place to build her nest. What kind of a place was she looking for?
   A. a place where there were no people.
   B. a place where there were lots of people.

2. Where did Gertie finally build her nest?
   A. on the top of a large post?
   B. on the top of a tall building.

3. The first little duck to hatch was named
   A. Suzie the duck
   B. Black Bill

4. Why did the people decide to move Gertie and her nest?
   A. the baby ducks began to fall in the water and couldn't get back in the nest.
   B. she got in the way of the boat that went under the bridge.

5. Where was the new home that the people found for Gertie and her babies?
   A. to the zoo.
   B. to the park.

Millions of Cats

1. The very old man and the very old woman were lonely so the very old man went to look for

   A. a cat
   B. a dog

2. What did the old man come to after he walked a long, long time?

   A. a pet store
   B. a hill that was covered with cats

3. How many cats did the old man bring home?

   A. all of the cats
   B. one little black cat

4. What did the cats do when the man asked which one was the prettiest?

   A. they all ran away
   B. they began to quarrel.

5. Finally there was only one cat left. What did the cat look like?

   A. a thin, scraggly kitten
   B. the biggest, prettiest cat of all

The Dragon that came down from the North

1. The Little Green Lizard was very happy because he was going on a long, long journey. Where was he going?

   A. to the forest
   B. to the desert

2. What did the possum, the platypus, the turkey and the wombat make to scare away the dragon?

   A. a big gun.
   B. a scaredragon

3. What did the creatures hide behind?

   A. a fence
   B. the trees

4. What did the little lizard do when he saw the scare-dragon?

   A. ran away and hid.
   B. say, "what is the pineapple doing, sitting quite still all alone on a stick?"

5. Who was really the dragon?

   A. the little green lizard
   B. a big dragon that ran away when they made faces at it.

Josie and the Snow

1. Josie wanted to go play in the snow. What did the animals want to do?

   A. Sleep
   B. Go play too

2. So who did Josie ask to go out in the snow?

   A. her friend Sally from next door.
   B. Her mommy and daddy and brother.

3. What did the family do first when they came in out of the cold snow?

   A. built a nice warm fire.
   B. make some hot chocolate.

4. Then what did the family do?

   A. Go back outside to play.
   B. Curled right up with buttercup and went to sleep.

APPENDIX G

Materials and Supplimentary Information for Experiment:

The Influence of Adult Commands

on Children's Moral Judgments

MATURE DISOBEY (Set one) Changed to IMMATURE OBEY (Set two)

1. One day Mother says,"Carol, I want you to stay in the yard and be sure not to go into the street." But while Carol is playing she notices that a baby has wandered into the street. So Carol dashes into the street and takes the baby to a safe place.

   (But Carol stays in the yard and plays with her doll and the baby was knocked down by a boy on a bicycle.)

2. One of the children brought some baby rabbits to school. The teacher says, "I don't want anyone picking the rabbits up and holding them. Leave them in their cage." While John was watching the rabbits one of them pushes against the door and opens it. Three rabbits hop out. John grab them and put them pack in the cage.

   (John stands up and runs out the door and plays with a boy on the playground.

3. It was raining outside. Karie's father said, "Don't go outside, Karie. It's raining too hard." As Marie watched the rain splattering on the sidewalk, she notices the car windows open. So she runs out into the rain and rolls the car windows up.

   (Karie forgets about the car windows and plays with her new doll.)

4. Ben's father says, "Ben, I just painted some shelves in the workshop. I don't want you or your friends to go in there." While the boys were playing with their trucks, they saw some water coming from under the workshop door. They run into the workshop and turn the water off.

   (So they put some dirt in front of the door to keep the water from getting in their play area.)

IMMATURE OBEY (Set two) Changed to MATURE DISOBEY (Set one)

5. Bonnie wants to push the baby in the stroller. Her mother says, "Ok, but keep the stroller on the sidewalk." Bonnie is pushing the stroller and sees a big hole ahead of her in the sidewalk. She stays on the sidewalk. She stays on the sidewalk but pushes the stroller into the hole. The stroller tips over and the baby falls out.

   (Bonnie takes the baby out of the stroller and puts hime on the lawn and pushes the stroller around the hole. Bonnie puts the baby back into the stroller.)

6. Bry has some new shoes. He wants to walk to Grandma's and show them to her. Mother says, "Stay on the sidewalk and don't walk in the gutter." On the way to Grandma's, there is a big mud puddle in the side walk. Bry stays on the sidewalk and walks through the mud puddle. His new shoes get all dirty.

   (Bry finds a board lying near the mud puddle and lays it across the puddle and walks over it.)

7. Blair's teacher says, "Only the teachers will handle the records for the record player." As the children are cleaning up, Blair sees one of the teachers about to run over a record on the floor with the sweeper. He doesn't pick the record up and the teacher runs over it and the record breaks.

   (Blair yells, "Wait" and grabs the record off the floor so the teacher wouldn't hit it.)

8. Alan is playing cowboys and Indians with his friends. Alan's mother says, "I'm waxing the floor in here and I don't want you boys coming in and tracking it up." As the boys are playing, the sky gets dark and it starts to rain. The boys stay outside and get all wet and cold from the rain.

   (So the boys tell mother it is raining and that they had better come in so they won't get wet and cold.)

IMMATURE DISOBEYS (Set three) Changed to MATURE OBEY (Set four)

9. Lona was helping mother feed the baby chicks. Mother said, "Use this kind of feed to give the baby chicks." Mother gave Lona the right chick feed. But Lona thought, "I'll give them this other kind of feed. They will like it better." Lona uses the wrong kind of chick feed and some of the chicks get sick.

   (But then Lona thought, "If I use this other kind, maybe the chicks will get sick." So Lona used the kind mother gave her.

10. Glen is going to water the plants for the teacher. Teacher says, "Don't put very much water on the plants." Glen thinks, "I'll help the plants grow faster if I give them lots of water." He pours too much water on the plants. The plants die.

    (But another boys say,"Give them lots of water so they will grow faster." But John thinks, "If I do they will die." John gives the plants the right amount of water."

11. Kathy is wearing her new pink dress. It has buttons down the front. Mother says, "Kathy before you take your dress off, unbotton the bottons in front." But Kathy thinks, "I can get my dress off without unbottoning it." She pulls it part way over her head and a hole tears in the side.

    (She hears her favorite T.V. program starting and wants to get her dress off as fast as she can. She thinks, "If I try to pull it off without unbottoning it, it will tear." She unbuttons her dress down the front.)

12. Ernie and Fred wanted to help father wash the car. Father says, "Ok, but don't spray water inside the car or the seats will get wet." Soon the outside of the car is washed. The boys notice how dirty the car is inside. They think, "Father will be proud of us if we clean the inside too." So they spray water inside the car. The seats get all wet.

    (So they get a bucket of water and some clothes and wipe the inside of the car clean.)

MATURE OBEY (Set four) Changed to IMMATURE DISOBEY (Set three)

13. Erika's mother says, "Erika, stay in the house until I get back from the store and watch the baby." But Erika's friend, Anne, comes over to show Erika her new Barbie doll. Erika wants to go outside and play with the doll. But she is afraid to leave the baby by himself. Erika says, "I can't come out now, I'm watching the baby." Erika stays in the house.

    (Erika thinks, "the baby will be alright if I leave for just a little while." Erika goes outside. While she is gone the baby climbs upon the table and falls off.)

14. It's clean up time at nursery school. The teacher says to the children, "Everyone start putting things away now and get cleaned up for snack." Carla says to Teri, "Teri, let's go read some books and not help clean up the toys and stuff." Teri says, "We better help the teacher." She starts putting blocks away.

    (Teri says, "Okay, let's go." Teri left a pile of puzzles out for someone else to put away.)

15. Jordon and three of his friends are hungry. Mother says, "You boys can each have one of these sandwiches. Don't eat any more or I won't have enough for my company." The boys eat one sandwich but they are still hungry. They say, "Let's eat another sandwich." But Jordon says, "We better not or there won't be any left for the company." The boys go outside.

    (So Jordon and his friends grabbed another sandwich and ran out the door. Mother never had enough sandwiches for company.)

16. Erin is in the store with father. Father says, "Stay here by the door and watch these packages." Erin sees some ponies outside that some boys and girls are riding. A man in a cowboy hat says, "Come on, Sonny, and ride the ponies." Erin says, "I can't leave these packages." He stays in the store.

    (Erin says, "Okay, if I can ride the black pony." While Erin was gone someone took a package.)

APPENDIX H

Materials and Supplimentary Information for Experiment:

The Effect of Training on Reciprocity Judgments

in Prekindergarten Children

TREATMENT A
(Session 1)

Materials needed: children's book, table, chairs for each S and E.

When the children have seated themselves around the table, put a book in the center of the table.

Ask: What do children do with this (pointing to the book)? I wonder if children enjoy looking at this. (Let children respond)

Select two children to stand near you in front of the others. Hand the book to one child and tell him to begin looking at it. Then tell the other child to go over and take the book away. Then have both children return to stand near you again.

Ask: (To whole group) What did you see happen just now? How did you feel when you saw _____ take away _____'s book?
How do you think _____ felt when _____ took his book away?
What do you think _____ (child whose book was taken away) wanted to do about it?
How do you think _____ felt when he took the book away? Why do you think he took the book away?
(To child who was looking at the book) How did you feel when _____ took your book away? What did you want to do when _____ took your book?
(To child who took the book away) How did you feel when you took away _____'s book from him/her?
(To entire group) What are some things _____ could have done when _____ took away his book?
(After each reply ask:) "Is that what a big person would do? How would you feel if someone did that to you?" If any child suggests reasoning the problem out with the other child, be sure to verbally praise that child with such comments as, "That's a very good idea, _____." or "I think that is a very good thing to say." Do not reinforce comments that would fall in any other category.

Say: "It's easy to get very angry when someone takes something away from us, isn't it? The best thing for _____ to do when _____ takes away his book is to say, 'I wasn't finished looking at that book. You

can have a turn when I'm finished'." Have each child in the group repeat this reply as you have stated it. Then have the two children role-play the whole thing again, including the solution you have just suggested. You may have to tell the children exactly what to say. The important thing is that they "try out" the behavior suggested. After this second role-playing, ask each of the two children "Now how do you feel?"

Ask all children in the group: "What did you like about what _____ (child who had the book taken away) did when his book was taken away?" Let the two role-players go back to their seats. Thank them for being such good helpers.

Have children come up in pairs, one pair at a time, and role-play the situation, including the solution. Let each child be the child who has the book taken away and also the child who takes the book away. Be sure to ask each child in each pair how he felt after each role-playing situation.

After all the children have had a turn acting out this situation, thank them for being good learners. Then dismiss them to go outdoors.

TREATMENT A
(Session 2)

Materials needed: Table, chairs for Ss and E, extra chair.

When the children have seated themselves around the table put an empty chair near you where all the children can see it. Say: "We're going to pretend this chair is the top of the slide outdoors."

Ask: What do children do on a slide (pointing to the chair)? I wonder if children enjoy playing on the slide. (Let children respond)

Select two children to stand near you in front of the others. Have one child sit in the chair and pretend he is getting ready to go down the slide. Go over to the second child and tell him to pretend he is pushing the other child off the slide. Then have both children return to stand near you again.

Ask: (To entire group) What did you see happen just now? How did you feel when you saw _____ push _____ off the slide?
How do you think _____ felt when _____ pushed him off the slide?
How do you think _____ felt when he pushed _____ off the slide? Why do you think one child would push another child off the slide?
(To child who was pushed off the slide) How did you feel when _____ pushed you off the slide? How would you have felt if it had been for real? What would you want to do if _____ pushed you off a real slide?
(To child who pushed _____ off the slide) How did you feel when you pushed _____ off the slide? How do you think you might feel if you had pushed _____ off a real slide?
(To entire group) What are some things _____ could have done when _____ pushed him off the slide? (After each reply ask) Is that what a big person would do? How would you feel if someone did that to you? If any child suggests reasoning the problem out with the other child, be sure to verbally praise that child with such comments as, "That's a very good idea, _____." or, "I think that is a very good thing to say." Do not reinforce comments that fall in any other category.

Say: "It's easy to get very angry when someone pushes us off a slide, isn't it? The best thing for _____ to do when _____ pushes him off a slide is to say, "I want to take my turn on the slide. It makes me afraid when you push me off." Have each child in the group repeat this reply as you have stated it. Then have the two children role-play the whole thing again, including the solution you have just suggested. You may have to tell the children exactly what to say. The important thing is that they "try out" the behavior. Then ask each of the two children: "Now how do you feel?"

Ask all children in the group: "What did you like about what _____ (child who was pushed off the slide) did when _____ pushed him off the slide?" Let the two role-players go back to their seats. Thank them for being such good helpers.

Have children come up in pairs, one pair at a time, and role-play the situation, including the solution. Let each child be the child who was pushed off the slide and also the child who pushes the other child off the slide. Be sure to ask each child in each pair how he felt after each role-playing situation.

After all the children have had a turn acting out this situation, thank them for being good learners. Then dismiss them to go outdoors.

TREATMENT A
(Session 3)

Materials needed: ball, table, chairs for Ss and E.

When the children have seated themselves around the table, put a ball in the center of the table.

Ask: What do children do with this (pointing to the ball)? I wonder if children enjoy playing with this. (Let children respond)

Select two children to stand near you in front of the others. Hand the ball to one child and tell him to begin playing with it. Tell the other child to tell the first child with the ball, "You give me that ball right now! I want to play with it!" Then have both children return to stand near you again.

Ask: (To entire group) What did you see happen just now?
How did you feel when _____ yelled at _____ and threatened to take away his/her ball?
How do you think _____ felt when _____ threatened to take his ball away?
What do you think _____ (child who was playing with the ball) felt about it? What do you think he wanted to do about it?
How do you think _____ felt when he yelled at _____? Why do you think he wanted the ball?
(To child who was playing with the ball) How did you feel when _____ yelled at you that he was going to take away your ball? What did you want to do when he yelled at you?
(To child who threatened to take away the ball) How did you feel when you yelled at _____?
(To entire group): What are some things _____ could have done when _____ yelled at him about the ball? (After each reply ask) Is that what a big person would do? How would you feel if someone did that to you? If any child suggests reasoning the problem out with the other child, be sure to verbally praise that child with such comments as, "That's a very good idea, _____." or, "I think that is a very good thing to say." Reinforce no other comments.

Say: "It's easy to get very angry when someone yells at us and threatens to take away something we are playing with, isn't it? The best thing for _____ to do

when _____ yells at him is to say, 'I know you want to play with the ball. You can have a turn when I'm finished.'" Then have the children repeat, one by one, the reply you just suggested. Then have the two children role-play the whole thing again, including the solution you have just suggested. You may have to tell the children exactly what to say. The important thing is that they "try out" the behavior. Then ask each of the two children: "Now how do you feel?"

Ask all children in the group: "What did you like about what (child who was playing with ball) did when _____ yelled at him?" Let the two role-players go back to their seats. Thank them for being such good helpers.

Have children come up in pairs, one pair at a time, and role play the situation, including the solution. Let each child be the one who was playing with the ball and also the child who yells at the other child playing with the ball. Be sure to ask each child in each pair how he felt after each role-playing situation.

After all the children have had a turn acting out this situation, thank them for being good learners. Then dismiss them to go outdoors.

TREATMENT B

Introductory Procedure for Each of the Three Sessions

Have two wooden figures, looking vaguely like human figures, on the table as the children enter the group and sit down. There should be a chart on the table with each child's name and a space beside each name where small stars can be pasted. (The figures will be "Mary" and "John" the first session; "John" and "Mark" the second session; and "Mary" and "Jane" the third session)

Pick up one figure and say: "This is Mary." Pick up the other figure and say, "This is John. Mary and John have a problem getting along with each other when they play together. Sometimes John hits Mary or takes away something Mary is playing with. Sometimes he just teases her. But sometimes Mary teases John and hits him and takes away things John likes to play with. We're going to play a little game. I'll tell you some things that John does to Mary or that Mary does to John. Then I'll ask you to tell me what John or Mary should do about it. If you give a good answer, I'll put a star here by your name. I'll show you what I mean. Let's pretend that John takes away Mary's tricycle outside (hold up figures as you talk about each one). This makes Mary very angry. She wants to hit John, and pull him off her tricycle. But she knows that would make John feel bad. She also knows that isn't what big people do. So instead of hitting John and pulling him off the tricycle, she tells him she is angry when he does things like that. She tells him to let her finish her turn and then he can have a turn."

Now put the figures in front of each child in the group and say, "What should Mary say to John when he takes away her tricycle?" If each child says something similar to what you just said, praise that child and put a star in the "example" column of the chart for that child. If the child gives an inappropriate answer, immediately tell him the correct answer and then ask him the same question again, or go to another child who can give the correct answer. Then return to the child who could not give the appropriate answer. In other words, be certain that each child in the group is able to give the correct answer

to the example.

Then say: "Now I'm going to tell you some stories about John and Mary. Each time I will ask you what John or Mary should do." Then tell each of the following situations, asking each child in the group to give the answer to that situation before moving on to the next situation. Begin and end the questioning with a different child for each situation. If a child answers with a solution that includes (a) trying to resolve the problem with the other child without physical or verbal aggression, put a gold star by his name. If the child suggests (b) trying to enlist the aid of an adult to help solve the problem, put a silver star by the child's name. If the child does not give an answer related to (a) or (b), simply go on to the next child. Move as quickly as possible from one child to the next.

(Names of the figures will change each session, but use same procedure above.)

(Do <u>not</u> get involved in any type of discussion about the stories and their solution.)

<u>Session 1</u>

(Today the figures are male and female, John and Mary)

1. Mary is playing in the sandpile. John comes over and throws sand in her eyes. What should Mary do about it?

2. John is building a high tower with the blocks. Mary comes over and knocks over John's tower. What should John do about it?

3. Mary is riding a tricycle in the playyard. John yells at Mary to get off the tricycle because he wants to ride it. What should Mary do about it?

4. John is sitting on the top of the slide ready to slide down. Mary comes up in back of him and tries to push him down before he is ready. What should John do about it?

5. Mary is playing with a nice big pile of clay at the table. John comes over and takes Mary's clay away. What should Mary do about it?

6. John is playing a record on the record player. Mary wants to play the record player, too, so she comes up to John and hits him. What should John do about it?

Session 2

(Today the 2 figures are both male, John and Mark)

1. Mark is eating a piece of candy. John comes up and takes away Mark's candy. What should Mark do about it?

2. John is playing with his truck in the sandpile. Mark comes over and hits John with a piece of rope. What should John do about it?

3. Mark is playing with a large rubber ball. John yells at Mark, "Give me that ball this minute!" What should Mark do about it?

4. John is playing with a train in the block corner. Mark comes over and tries to take John's truck away. In the scuffle Mark tears John's shirt. What should John do about it?

5. Mark is painting a beautiful picture at the easel. John comes over and rips Mark's picture and throws it in the waste basket. What should Mark do about it?

6. John is riding his tricycle outside. Mark also is riding a tricycle. Mark rides as fast as he can over to John and rams his tricycle into John's. What should John do about it?

Session 3

(Today the two figures are both female, Mary and Jane)

1. Jane wants to play with a group of children playing in the dollhouse. Mary yells at Jane, "You can't play with us. We don't want you." What should Jane do about it?

2. Mary is putting a puzzle together. Jane comes over and bites Mary on the arm so it hurts. What should Mary do about it?

3. Jane is sitting at the snack table eating a birthday cupcake. Mary comes over and takes the cupcake away from Jane. What should Jane do about it?

4. Mary is playing with her doll. Jane comes over and takes away Mary's doll. What should Mary do about it?

5. Jane is making a picture with fingerpaint. Mary comes over and smears the fingerpaint in Jane's picture. What should Jane do about it?

6. Mary is swinging in the swing. Jane comes over and pushes Mary out of the swing. What should Mary do about it?

TREATMENT C

Introductory Procedure During each of the Three Sessions

Introduce yourself to the children after they are seated. They may be seated around a table, in a semicircle on chairs, or in a semicircle on the floor.

Say: "I'm going to read to you one of your favorite story books. But I want you to listen carefully because I'm going to ask you some questions after the story. Today let's hear about _____ (name of book).

After you read the story to the children ask the questions related to that story. Just one story per session.

Session 1

(Read Caps for Sale, by Esphyr Slobodkina)

What is a peddler? (man who sells things)
What kind of things did the man in the story sell? (caps)
What is another word for "caps"? (hats)
Where did the peddler carry his caps? (on his head)
What were the colors of the caps the peddler sold? (brown caps, white caps, gray caps, red caps--and he wore his own checked cap)
What color was the cap on the very top of the bunch? (red)
How much did it cost to buy one of the peddler's caps? (50 cents)
What did the peddler do when he went for a walk? (He went to sleep under a tree)
Where were the caps when the peddler went to sleep? (on his hed)
Where did he find the caps when he woke up? (on each monkey up in the tree)
Did the monkeys give back the caps? (yes, but the peddler had a hard time getting them back)

Session 2

(Read Curious George, by Hans A. Rey)

Who was George in the story? (a monkey)
Where did George live at the beginning of the story?

(in Africa)
Who caught George? (a man in a big yellow hat)
How was George carried to the ship? (in a bag)
What happened when curious George tried to fly like the seagulls? (he fell off the ship into the ocean)
Who pulled George from the water? (the sailors on the ship)
What happened when George played with the telephone at the man's house? (he accidentally telephoned the fire station)
What did the firemen do with George? (they put him in prison so he couldn't do any more harm)
How did George get out of the prison? (he ran out of the door when the watchman came in to pull George down from the window)
What happened when George tried to help himself to a balloon from the balloon man? (the whole bunch broke loose--George hung on and the wind carried him and the balloons over the city)
What happened to George when the wind died down? (George landed on top of the traffic light)
Where did George finally go to live? (in the zoo)

Session 3

(Read Where the Wild Things Are, by Maurice Sendak)

What was the name of the boy in the story? (Max)
Is this a real life story or a "let's pretend" story? (let's pretend)
Why did Max go to bed without eating? (because he had made mischief)
What does it mean to "make mischief?" (let children discuss this--lead them to the idea that it means to do things they're not supposed to do)
What grew in Max's room that night? (a forest)
Where did Max sail to? (where the wild things are)
What did the wild things do when Max came to the place where they lived? (they "roared their terrible roars" and "gnashed their terrible teeth" and "rolled their terrible eyes" and "showed their terrible claws")
What did Max do to tame the wild things? (he stared into their eyes without blinking)
What did the wild things make Max? (their king)
Why did Max finally sail home? (because he was lonesome and hungry)
What did Max find when he returned to his room? (he found his supper waiting for him--and it was still hot)

APPENDIX I

Supplimentary Information for Experiment:

Parental Attitudes as Predictors of

Children's moral Judgments

TABLE 29

Summary Table of Correlations on Computed Difference Scores for Immanent Justice and Naturalistic Response with M.P.A.S. Variables

	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Mother-Disciplinarian	.21	.08	.16	.30	.10	.09	.06	-.04
Mother-Indulgent	.08	.25	-.12	.04	-.23	-.26	.11	.10
Mother-Protecting	-.16	-.27	-.19	-.41	-.10	-.17	.03	.31
Mother-Rejecting	-.10	-.11	.13	-.08	.11	.18	-.19	-.22
Father-Disciplinarian	.20	.07	.00	.16	-.37	-.21	-.08	-.13
Father-Indulgent	-.07	-.09	-.10	-.27	.21	.27	.37	.41
Father-Protecting	-.26	.00	.01	.02	.33	.03	-.08	-.15
Father-Rejecting	.21	.15	.19	.15	-.16	-.03	-.21	-.13

Immanent Justice: Y13-Y16
Y13 = Y1-Y3
Y14 = Y1-Y5
Y15 = Y2-Y4
Y16 = Y2-Y6

Naturalistic Response: Y17-Y18
Y17 = Y7-Y9
Y18 = Y7-Y11
Y19 = Y9-Y10
Y20 = Y9-Y12

TABLE 30

Summary Table of Inter-Correlations Between M.P.A.S. Variables
(From Data on Immanent Justice and Naturalistic Scores)

	MDISC	MINDL	MPROT	MREJ	FDISC	FINDL	FPROT	FREJ
MDISC	1.00	- .25	.09	- .51*	.24	- .01	- .05	- .21
MINDL		1.00	.06	- .46*	- .01	.12	- .13	- .00
MPROT			1.00	- .59*	- .03	.04	.04	- .15
MREJ				1.00	- .15	- .02	.08	.16
FDISC					1.00	- .53*	- .31	- .37*
FINDL						1.00	- .30	- .14
FPROT							1.00	- .23
FREJ								1.00

*Significant at≤.05 level

MDISC = Mother-Disciplinarian
MINDL = Mother-Indulgent
MPROT = Mother-Protecting
MREJ = Mother-Rejecting

FDISC = Father-Disciplinarian
FINDL = Father-Indulgent
FPROT = Father-Protecting
FREJ = Father-Rejecting

TABLE 31

Summary Table of Correlations for Punishment and Independence of Sanction Scores with M.P.A.S. Scores

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Mother-Disciplinarian	.10	-.11	.18	-.30	.06	-.13	.14	.43*
Mother-Indulgent	.25	.03	.11	.43*	.15	.16	.23	-.27
Mother-Protecting	-.07	.06	-.17	-.16	-.21	.10	-.15	-.11
Mother-Rejecting	.24	.04	-.14	.03	-.05	-.08	-.26	-.04
Father-Disciplinarian	.00	-.16	-.17	-.01	-.13	-.18	-.19	-.03
Father-Indulgent	.07	.04	.24	.17	.16	.01	.23	.03
Father-Protecting	-.01	.04	-.11	-.18	-.26	.05	-.11	-.16
Father-Rejecting	.00	.10	-.02	-.17	-.04	.11	-.02	.13

*p. <.05

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Initial Scores: Y1-Y5:

Punishment: Y1-Y3
Y1 = pre-test
Y2 = Post-test
Y3 = Delayed post

I.S.: Y4-Y5
Y4 = Pre-test
Y5 = Post-test

Difference Scores: Y6-Y8

Punishment: Y6-Y7
Y6 = Y1-Y2
Y7 = Y1-Y3

I.S.: Y8
Y8 = Y4-Y5

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TABLE 32

Analysis of Variance of Kohlberg's Moral Judgment Scores and Sex on Mother-Disciplinarian Scores

	Source	SS	df	MS	F	P
A	MJ Score	23.33	1	23.33	2.30	NS
B	Sex (child)	1.67	1	1.67	.16	NS
AB		12.56	1	12.56	1.24	NS
	Error	1963.80	26	10.11		

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TABLE 33

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Mother-Indulgent Scores

	Source	SS	df	MS	F	P
A	MJ Score	14.80	1	14.80	1.11	NS
B	Sex (child)	.00	1	.00	.00	NS
AB		1.63	1	1.63	.12	NS
	Error	2569.08	26	13.23		

TABLE 34

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Mother-Protecting Scores

	Source	SS	df	MS	F	P
A	MJ Score	8.78	1	8.78	0.64	NS
B	Sex (child)	.00	1	.00	.00	NS
AB		2.14	1	2.14	.15	NS
	Error	2631.71	26	13.55		

TABLE 35

Analysis of Variance of Kohlberg's Moral Judgment Scores and Sex with Mother-Rejecting

	Source	SS	df	MS	F	P
A	MJ Score	2.06	1	2.06	0.13	NS
B	Sex (child)	.16	1	.16	.01	NS
AB		20.81	1	20.81	1.34	NS
	Error	3011.23	26	15.51		

Table 36

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Father-Disciplinarian Scores

	Source	SS	df	MS	F	P
A	MJ Score	0.56	1	0.56	0.05	NS
B	Sex (child)	.12	1	.12	.01	NS
AB		6.00	1	6.00	.54	NS
	Error	1926.10	26	11.11		

Table 37

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Father-Indulgent Scores

	Source	SS	df	MS	F	P
A	MJ Score	15.64	1	15.60	0.89	NS
B	Sex (child)	8.12	1	8.12	.46	NS
AB		8.70	1	8.70	.50	NS
	Error	2010.10	26	17.36		

Table 38

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Father-Protective Scores

	Source	SS	df	MS	F	P
A	MJ Score	4.62	1	4.62	0.22	NS
B	Sex (child)	45.56	1	45.56	2.22	NS
AB		4.20	1	4.20	.20	NS
	Error	3555.30	26	20.51		

Table 39

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Father-Rejecting Scores

	Source	SS	df	MS	F	P
A	MJ Score	2.40	1	2.40	0.09	NS
B	Sex (child)	13.32	1	13.32	.52	NS
AB		1.10	1	1.10	.04	NS
	Error	4358.50	26	25.14		

Table 40

Summary Table of Correlations for Punishment and Independence of Sanction Scores with Child Behavior Ratings

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Friendliness	-.04	-.04	.00	.14	.08	-.03	.02	-.05
Conformity	.22	-.18	-.15	-.07	-.02	-.32	-.26	.05
Independence	-.06	-.06	-.07	.05	.13	-.03	-.05	.12
Aggression	-.27	.27	.02	-.03	-.16	.44*	.15	-.19

*p. < .05

Initial Scores: Y1-Y5

Punishment: Y1-Y3
Y1 = Pre-test
Y2 = Post-test
Y3 = Delayed post

I.S.: Y4-Y5
Y4 = Pre-test
Y5 = Post-test

Difference Scores: Y6-Y8

Punishment: Y6-Y7
Y6 = Y1-Y2
Y7 = Y1-Y3

I.S.: Y8
Y8 = Y4-Y5

Table 41

Summary Table of Correlations for Immanent Justice and Naturalistic Scores with Child Behavior Ratings

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
Friendliness	.38*	.40*	-.13	-.00	-.02	.02	.00	-.24	.27	.04	.00	-.10
Conformity	.35	.06	.09	.15	.25	.13	-.36	-.25	-.29	-.06	-.26	-.24
Independence	.29	.33	.14	.36	.31	.29	-.08	-.25	-.02	-.22	-.24	-.27
Aggression	-.29	-.11	-.19	-.31	-.38*	-.40*	.20	.19	.31	.22	.39	.42

*Prob. $\leq .05$

Immanent Justice: Y1-Y6
- Y1 = Pre-test, related
- Y2 = Pre-test, unrelated
- Y3 = Post-test, related
- Y4 = Post-test, unrelated
- Y5 = 2nd Post-test, related
- Y6 = 2nd Post-test, unrelated

Naturalistic: Y7-Y12
- Y7 = Pre-test, related
- Y8 = Pre-test, unrelated
- Y9 = Post-test, related
- Y10 = Post-test, unrelated
- Y11 = 2nd Post-test, related
- Y12 = 2nd Post-test, unrelated

Table 42

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Child Behavior-Aggression Scores

	Source	SS	df	MS	F	P
A	Sex	17.35	1	17.35	4.97	.05
B	MJ Score	.48	1	.48	.13	NS
AB		2.08	1	2.08	.59	NS
	Error	1142.14	36	3.49		

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Table 43

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Child Behavior-Friendliness Scores

	Source	SS	df	MS	F	P
A	Sex	15.03	1	15.03	1.12	NS
B	MJ Score	.88	1	.88	.06	NS
AB		69.63	1	69.63	5.20	.05
	Error	4380.04	36	13.38		

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Table 44

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Child Behavior-Conformity Scores

	Source	SS	df	MS	F	P
A	Sex	12.96	1	12.96	3.29	NS
B	MJ Score	.09	1	.09	.02	NS
AB		.14	1	.14	.03	NS
	Error	1287.00	26	3.93		

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Table 45

Analysis of Variance of Kohlberg's Moral Judgement Scores and Sex on Child Behavior-Independence Scores

	Source	SS	df	MS	F	P
A	Sex	7.99	1	7.99	1.82	NS
B	MJ Score	.89	1	.89	.20	NS
AB		5.47	1	5.47	1.25	NS
	Error	1430.03	36	4.37		

Table 46

Summary Table of Simple Correlations Between Kohlberg's Moral Judgement Scores and Child Behavior

Factor	K.M.J. Score
Friendliness	-.00
Conformity	.02
Independence	.03
Aggression	-.02

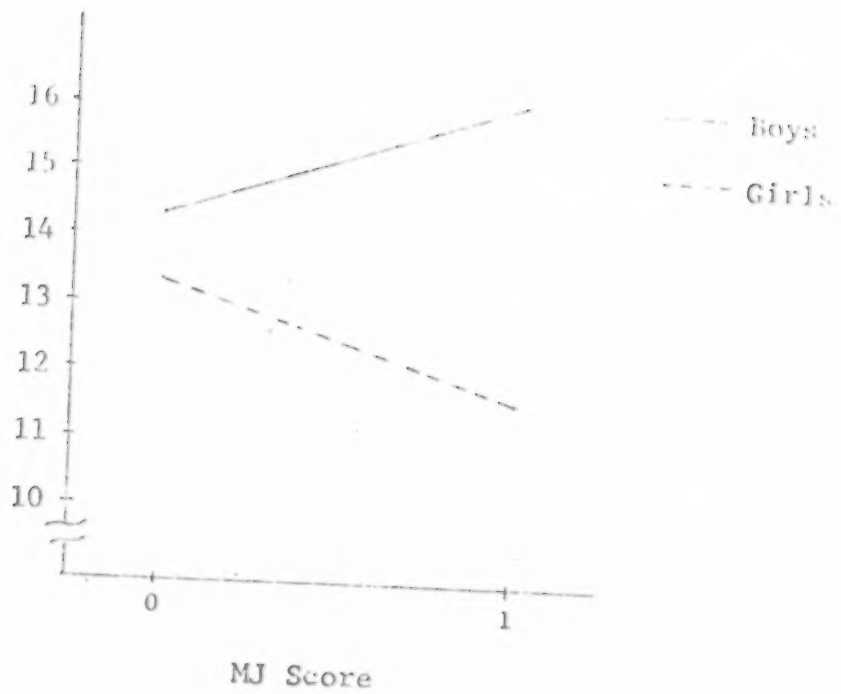

Figure 7. Comparison of means for sex differences on Kohlberg's Moral Judgment scores with child Behavior-Agression Scores

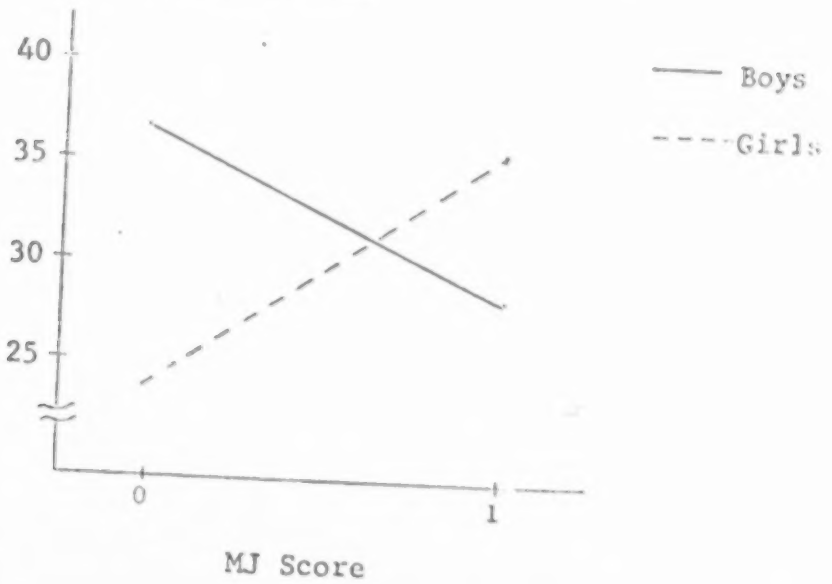

Figure 8. Comparison of Means for interaction effect on Kohlberg's moral judgment scores with Child Behavior-Friendliness Scores

Table 47

Mean Ratings of Friendliness on Male and Female Subjects with K.M.J. Scores

Sex	K.M.J.	
	1	2
Male	28.8	36.2
Female	33.2	24.0

Table 48

Mean Ratings of Aggression on Male and Female Subjects with K.M.J. Scores

Sex	K.M.J.	
	1	2
Male	15.7	14.0
Female	11.5	13.0